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# FISH MARKETING AND CONSUMPTION IN THE PACIFIC COAST STATES

SPECIAL SCIENTIFIC REPORT–FISHERIES No. 335

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

## EXPLANATORY NOTE

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United States Department of the Interior, Fred A. Seaton, Secretary
Fish and Wildlife Service, Arnie J. Suomela, Commissioner

# FISH MARKETING AND CONSUMPTION IN THE PACIFIC COAST STATES

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ABSTRACT

This report is a comprehensive survey of the marketing and consumption of fresh, frozen packaged, and smoked fish and shellfish in California, Oregon, and Washington. Consumer purchases and preferences for salmon, halibut, sole, rockfish, and crab in these forms are examined in detail. For example, household purchases of fresh fish and shellfish of these species are analyzed by areas within the states, by income and factors associated with income such as occupation and education, by region of prior residence and duration of residence on the Pacific coast, by religious groups, and by retail outlet where these products were last purchased. Similar analyses are made of the household purchases of frozen packaged and smoked fish and shellfish.

The retail distribution of fresh fish and shellfish in the Pacific Coast States is examined with special emphasis on the major problems confronting the retailers handling these products. The selling practices of retailers who stock frozen packaged fish are presented in some detail because of the large percentage of retail stores involved. A limited analysis is made of the retail distribution of smoked fishery products.

The examination of the wholesale distribution of the fishery products included in the study is concerned with the type of wholesalers and type of product, the services offered to retailers, the storage facilities used by wholesalers, and their suggestions and opinions in connection with product improvement and promotion.

A series of recommendations based on the study are presented. The important areas covered include: consumer education; retailer and wholesaler education; service improvement; and product improvement.

The project was financed with funds made available by the Saltonstall-Kennedy Act, approved July 1, 1954 (68 Stat. 376).

## ACKNOWLEDGEMENTS

This study conducted by the Department of Agricultural Economics at Oregon State College, was financed with funds made available under the Saltonstall-Kennedy Act, approved July 1, 1954 (68 Stat. 376).

Acknowledgement is made to Dr. G. Burton Wood who gave generously of his time and contributed many valuable suggestions. The energetic assistance of Frank Faha, who served on the research team for about one year prior to being called into the Air Force, is acknowledged. Dr. Lyle Calvin's assistance in working out the sample design for the three phases of the study, his helpful suggestions in planning the questionnaires and the IBM tabulations were important. Several members of the Fish and Wildlife Service including the late Dr. R. A. Kahn, Walter H. Stolting, and Alton T. Murray offered helpful suggestions during various stages of the work. Also Dr. James A. Crutchfield of the Department of Economics of the University of Washington served as consultant and gave valuable assistance.

John Riley, Dennis Oldenstadt, and Frank Faha served untiringly as enumerators. Mr. Oldenstadt was largely responsible for developing the graphics for the study.

Fishing industry advisory committees serving in Seattle, Portland, and San Francisco gave willingly of their time and service in helping to pinpoint problem areas, in reviewing the preliminary questionnaires, and in soliciting industry support for the study.

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# INTRODUCTION

The fishing industry is an important source of income in the Pacific Coast States. The ex-vessel value (amount paid to fishermen) of the Pacific Coast landings represented about 21 percent of the total value of the United States catch in 1958.

In recent years the fishing industry of the West Coast and other sections of the United States has been faced with unsatisfactory prices for many of its products. This situation has resulted from increased operating costs, expanded competition from imported fishery products, and competition from other food products. Overinvestment in boats and gear has added to the industry's difficulties. Problems of maintaining quality control have pyramided. Fishermen have ranged farther from port in order to reach better fishing grounds. They have remained at sea for longer periods of time so as to maximize catches while operating under restrictive fishing regulations.

The growing need for research into the economic and other problems confronting the fishing industry resulted in the passage of the Saltonstall-Kennedy Act of 1954. The Act makes funds available for marketing, consumption, and production research (including biological studies) for the industry. Research funds are administered by the United States Fish and Wildlife Service of the Department of the Interior. The Service has contracted with various firms, institutions, and agencies to conduct certain phases of the research contemplated under the Act.

This study was completed under contract between the Fish and Wildlife Service and Oregon State College. Its purpose was to investigate the marketing and consumption of fresh, frozen and cured fishery products on the Pacific Coast. The West Coast was considered an appropriate area for study because of the relatively low per capita consumption of fish in that area. Estimates indicate the consumption there to be only slightly above the national average. In contrast, consumption in some coastal areas of the North Atlantic States is much greater than the national average.

The primary objective of the project was to determine the important reasons for the low per capita use of commercial fish and shellfish products in the Pacific Coast States of Washington, Oregon and California. The study was planned so as to investigate the influence upon consumption of (1) population characteristics, (2) quality of fish and fish products, and (3) availability of selected species of fish. Data relating to these factors were collected by personal interviews with 97 wholesalers, 261 retailers, and 1,843 consumers in the States of Washington, Oregon and California. Because the various segments of the population were sampled at different rates, the completed interviews were expanded to give a self-weighting sample. Thus, in the analysis, a total of 2,064 consumers, 904 retailers, and 307 wholesalers were contacted. A different questionnaire was used for each of these groups. In general the samples were drawn proportionate to the distribution

of the population in each State, resulting in a high proportion of the interviews being taken in the more heavily populated coastal areas. This was particularly true of California.

The study was limited to the consumption and distribution of the fresh, frozen packaged, and smoked forms of salmon, halibut, sole, rockfish, and crab. Special studies of canned fishery products are available and consequently canned fishery products were excluded from this project. Moreover, the primary markets for Pacific Coast canned fishery products are outside the study area.

## Fresh Fish and Shellfish

Seventy-three percent of the consumers in the Pacific Coast States bought some fresh, frozen packaged, or smoked fish or shellfish during the preceding year for home consumption. 1/ About 43 percent of the non-purchasers gave "don't like it" as their reason for not buying fish. Twenty percent of the non-purchasers caught their own fish. In Washington and Oregon, 38 and 31 percent of the respective non-purchasing households gave this reason for not buying fish.

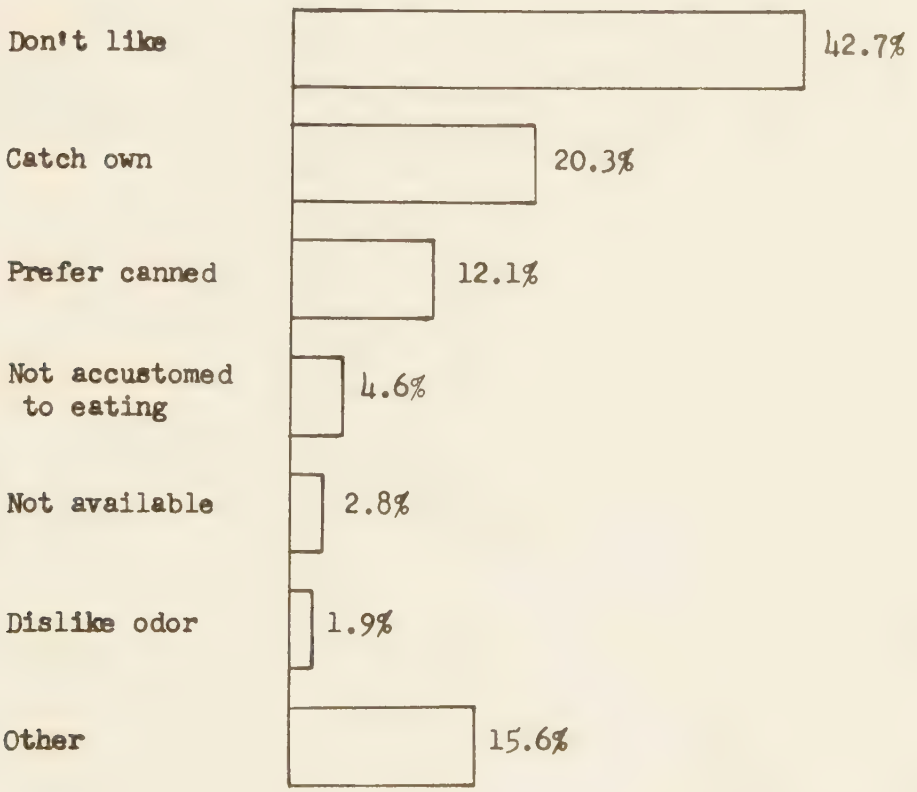



FIGURE - 1.--Reasons for not purchasing fresh, frozen packaged, or smoked fish or shellfish, Pacific Coast States, 1956

1/ Throughout this report the term "fish" includes fish and shellfish. The term "smoked" includes smoked and kippered fish.

Only 53 percent of the households contacted in California bought fresh fish as compared to 64 percent in Oregon and 69 percent in Washington. Among the households buying some kind of fish, 91 percent purchased fresh fish in Oregon and Washington as compared to only 72 percent in California. The adverse picture as shown by the figures for California is largely a reflection of very low fish consumption in the southern coast area, including the Los Angeles metropolitan area (Area II; see figure 2). Only 48 percent of the households in Area II purchased fresh fish as compared with nearly 70 percent in Area I, the remainder of the coastal area extending from Monterey to the Canadian border.

For the three states only about 33 percent of the households purchased salmon and halibut, the two most popular fresh fish. Only 19 percent purchased rockfishes, and 22 percent crab.

The consumption of fresh fish was found to be directly related to income and by several factors associated with income, such as occupation and education. The effect of income as a favorable factor in increasing consumption was considerably greater on the more expensive fish and shellfish such as crab and salmon than on sole and rockfishes.

One of the significant facts brought out by the study was the relationship of prior residence of respondents and their consumption of fresh fish. A high percentage of the consumers on the West Coast formerly lived in the North Central, South Central, and the Mountain States where fresh fish are not always readily available. About one-half of the former residents from these areas purchased fresh fish, as compared to about 65 percent of the native population. The percentage of households purchasing fresh fish increases rather sharply during the first few years of residence on the coast, but then levels off. Additional time in the State, therefore, only partly replaces formal promotional and educational programs as a stimulus to further increases in the level of the fresh fish purchasing rate.

The study supports the thesis that food consumption habits are slow to change. Unless influenced by advertising and education, the tendency is to continue eating those foods to which one is accustomed. So far very little fish promotion or educational work has been undertaken on the West Coast. The opportunity to increase fish sales through advertising and educational programs appears to be rather promising, particularly in southern California where fish consumption is now very low.

Among Protestants and Catholics, the groups accounting for the major proportion of the households in the study, there was little difference in the percentage buying fresh fish or frozen packaged fish. However, the Catholic households purchased fish much more frequently than did their Protestant counterparts. A very high percentage of the Jewish people reported the purchase of fresh fish, while a very low percentage purchased frozen packaged fish. The higher proportion of Protestant households on the West Coast as compared with the population composition of some of the North Atlantic States undoubtedly is an important factor in accounting for the relatively low fish consumption in the Pacific States Area.

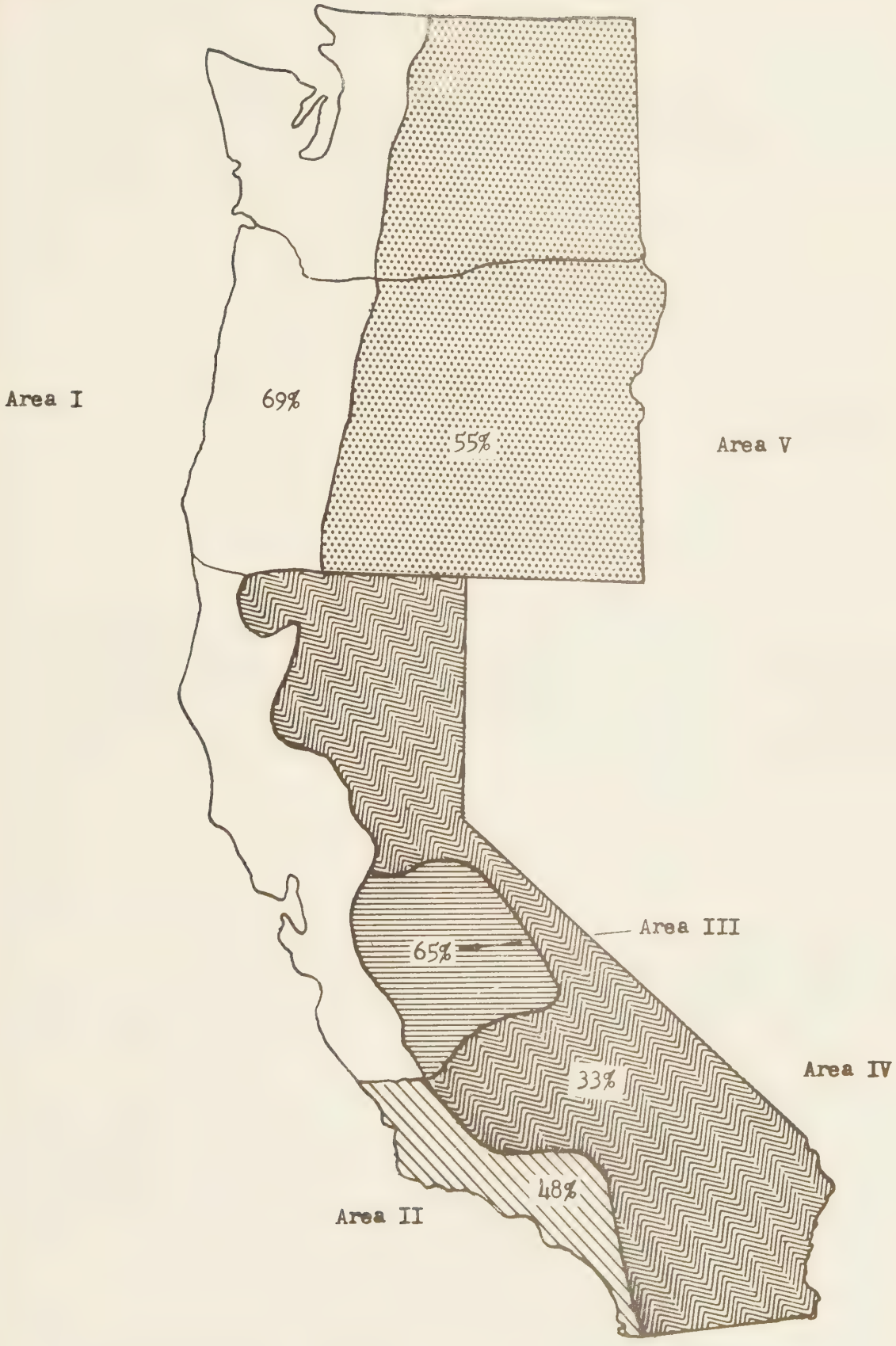



FIGURE - 2.--Percent of all households purchasing fresh fish, by geographic areas, Pacific Coast States, 1956

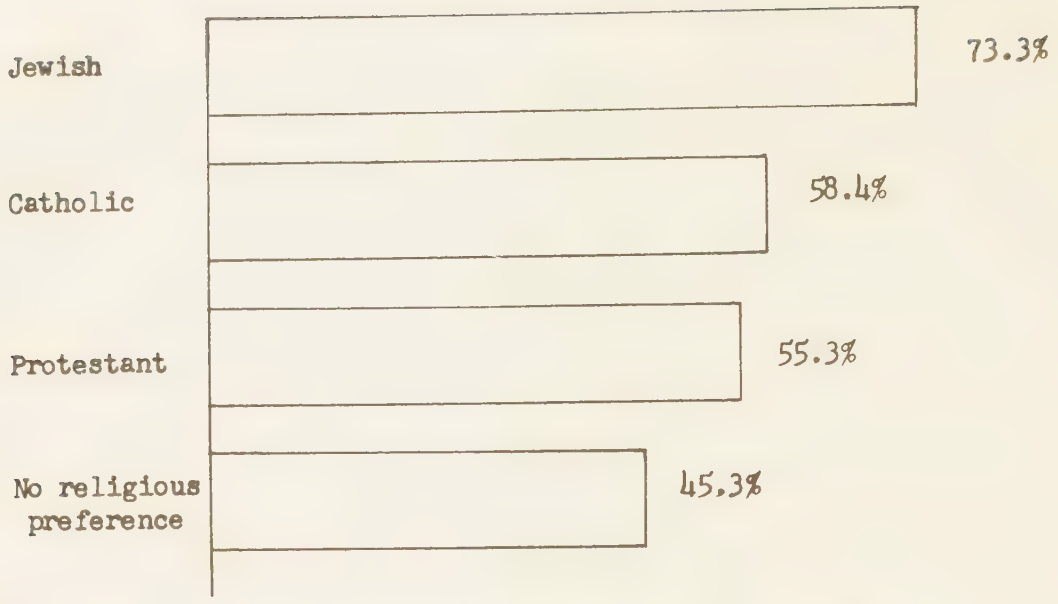



FIGURE - 3.--Percent of all households purchasing fresh fish, by religious groups, Pacific Coast States, 1956

At least 23 percent of the consumers, and as many as 33 percent, said that fresh salmon, halibut, sole, rockfishes, or crab were not available where they did their food shopping. When fish is not available on a particular shopping day consumers frequently shift to substitute products rather than to go to another store for it. About 36 percent of the households interviewed purchased fresh fish at fish markets, while the rest of the food shopping was done elsewhere.

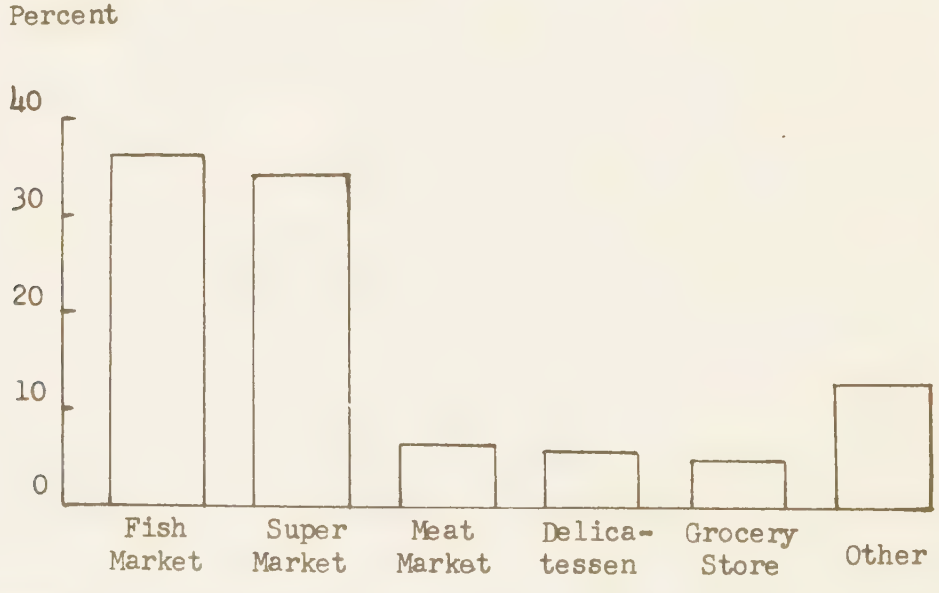



FIGURE - 4.--Fresh fish purchases, Pacific Coast States, 1956

Many consumers reported that fresh fish was frequently of poor quality. This complaint was given much more often by households buying fish in grocery stores and neighborhood markets than by those purchasing it in supermarkets.

Only 16 percent of the households buying fresh fish wanted it prepackaged; 9 percent had no preference. Those desiring prepackaged fresh fish wanted a transparent wrapper, or window-type package which would permit them to see the fish.

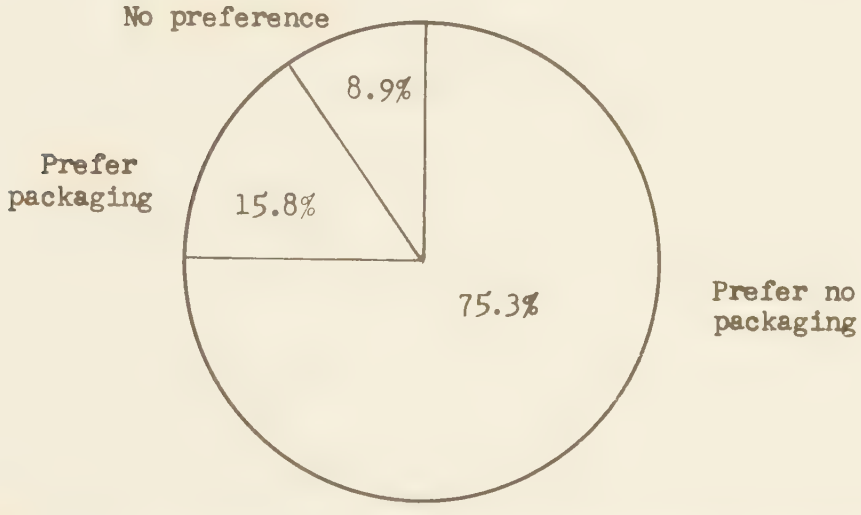



FIGURE - 5.--Consumer preference for prepackaged fresh fish, Pacific Coast States, 1956

## Frozen Packaged Fish and Shellfish

About 49 percent of all households interviewed and 67 percent of the households purchasing fish in some form other than canned, bought frozen packaged fish. Nearly as many households in California used frozen packaged fish as those using fresh fish. On the other hand, in Washington and Oregon most households purchased fresh fish.

In general, the percentage of the households buying frozen packaged fish increased with income amd level of education. Sole was the most popular frozen packaged fish. It was purchased by 23 percent of all households. Twenty percent purchased frozen packaged halibut, 11 percent salmon and rockfishes, and about 4 percent purchased crab.

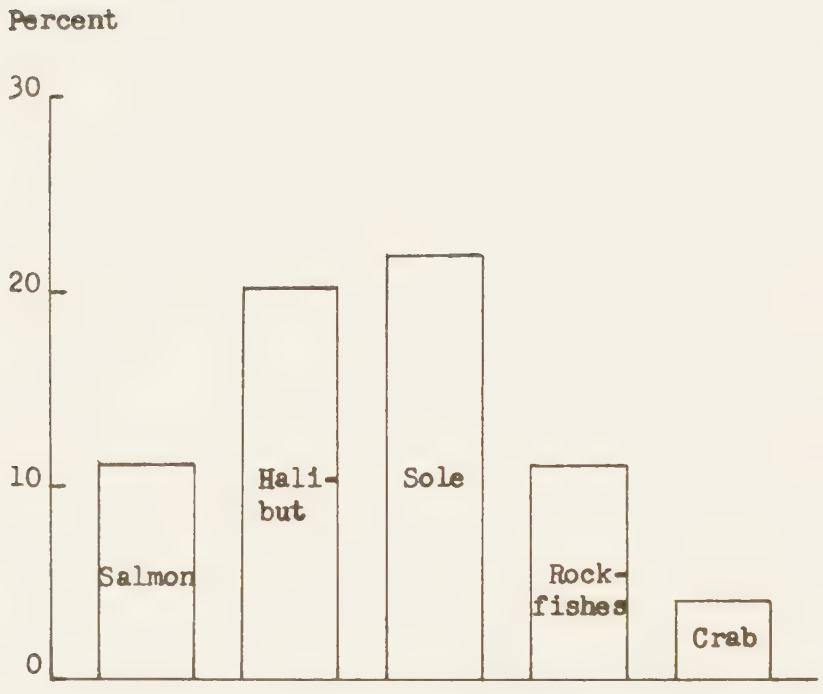



FIGURE - 6.--Percent of frozen packaged fish and shellfish purchased by all households studied, 1956

Nearly 70 percent of the households purchased their frozen packaged fish at supermarkets; most of the remainder was purchased at grocery stores. Most of the households reported that the leading kinds of frozen packaged fish were available where they did their food shopping.

About 39 percent of the consumers interviewed preferred frozen fish to be packaged in a wrapper which allowed the fish to be visible. This was particularly true of unadvertised brands. Twenty-five percent of the purchasers had no preference as to the type of package. Thirty-six percent favored a cardboard box with an over-wrapper.

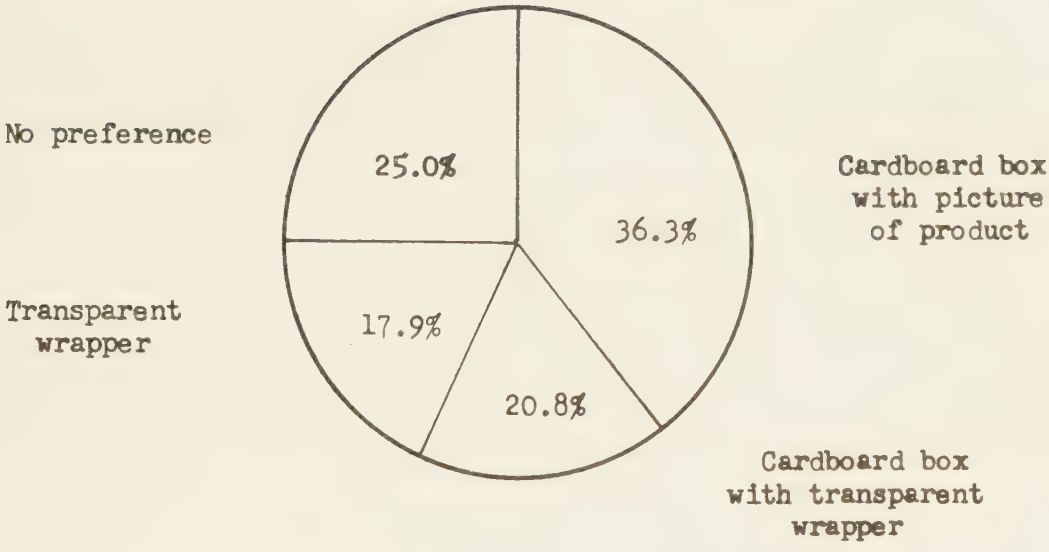



FIGURE - 7.--Consumer preference for frozen packaged fish container, Pacific Coast States, 1956

Forty-two percent of the consumers said they would want frozen fish to be cut into individual servings. Most of the households desiring individual portions did not know what size they preferred the portion to be. About 24 percent wanted a 4-ounce serving.

More than 74 percent of the households would like to have a piece of wax paper or parchment dividing the individual steaks or portions of fillets in a package. This method of packaging aids in the separation of the steaks without complete thawing, and makes possible the cooking of only part of the contents of the package.

## Smoked Fish

About one out of four households in the Pacific Coast States bought smoked fish sometime during the survey year. Nearly 44 percent of the households in Washington purchased smoked fish, as compared with 21 percent in California, and 33 percent in Oregon. Salmon was by far the most popular smoked fish item.

## Product Preparation

Approximately 80 percent of the households prepared sole and rockfishes by frying. Halibut and salmon were usually fried by 66 and 57 percent of the households, respectively. Most of the other households broiled or baked these items.

One of the important reasons given by consumers for not using more fish, or for not using it more frequently, was that fish cooking odors are objectionable. These odors are associated with the preparation of fish by frying. Also, fish are often over-cooked, and thus even less appealing when fried. More fish undoubtedly would be used if housewives were familiar with alternate methods of preparation. The availability of some good simple recipes would help. Many consumers reported that current recipes are too complicated except for experienced cooks, and call for too many ingredients.

## Fresh Fish and Shellfish

Only stores handling fresh, frozen packaged, or smoked fish were interviewed in this study. Fifty-four percent of the retailers questioned sold fresh fish; the proportion was considerably higher in Washington and Oregon than in California. For example, 67 percent of the supermarkets in California sold fresh fish as compared to 100 percent in the other two states. The over-all percentage of each kind of store handling fresh fish in southern California was even lower. This is significant when considering the large potential market for fishery products there.

"Not properly equipped" was the reason most frequently given by retailers for not stocking fresh fish. However, about 84 percent of the stores not selling fish handled fresh meat and consequently had refrigeration equipment. If given proper encouragement and instruction by wholesalers, many of these stores might be induced to sell fresh fish and shellfish.

Of the stores stocking fresh fish and shellfish, nearly all sold salmon, most sold halibut. Crab and rockfishes were handled by 54 and 71 percent of the retailers, respectively.

Most of the retail stores purchased their fresh fish on a delivered basis from a local fish wholesaler. A large number received only one delivery per week. This results in either poor quality fish during most of the week or an inadequate over-the-week supply. Neither alternative is conducive to increased fish sales.

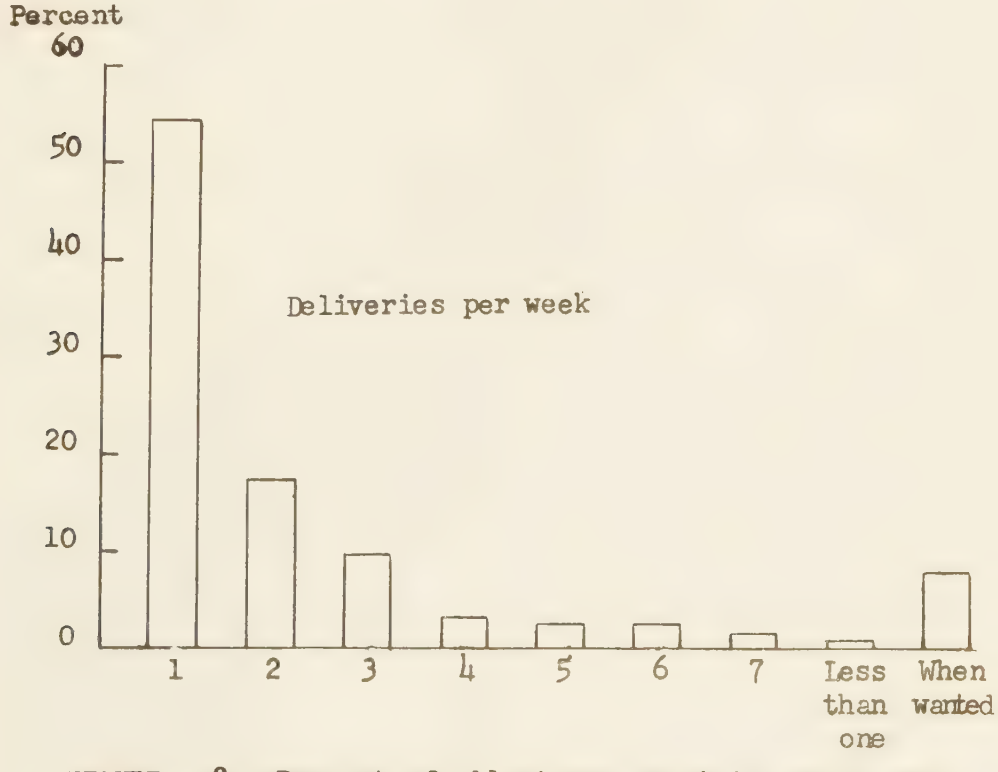



FIGURE - 8.--Percent of all stores receiving fresh fish deliveries, by number of deliveries per week, Pacific Coast States, 1955

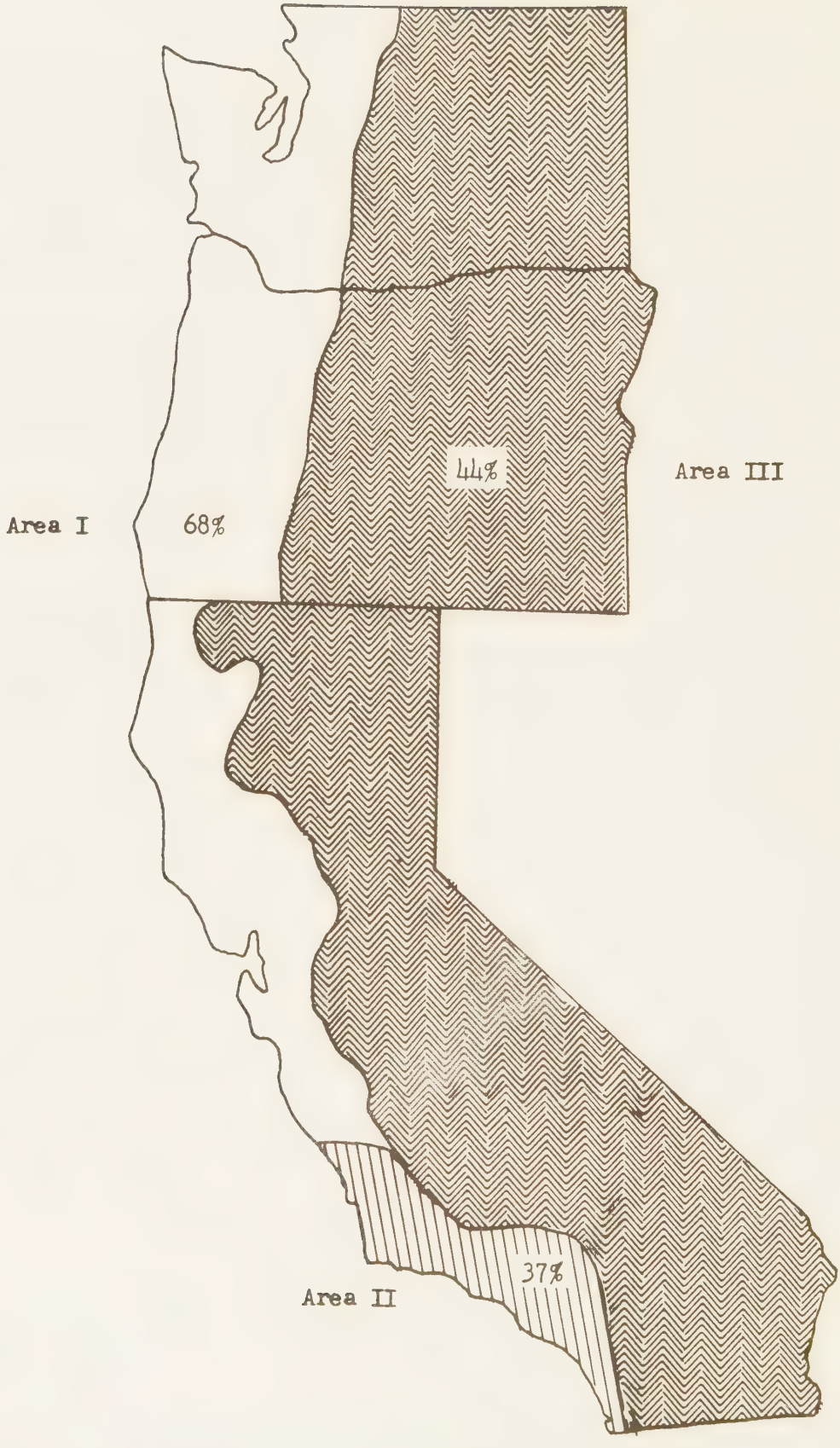



FIGURE - 9.--Percent of all retail stores handling fresh fish, by geographic areas, Pacific Coast States, 1955

Self-service for fresh fish was provided by about 69 percent of the supermarkets in Washington, 28 percent in Oregon, and 19 percent in California. The prepackaging for self-service was done primarily at the retail level. Experienced retailers prepackaged fresh fish shortly before it was sold in order to prevent wet and unattractive packages. Retailers recognized that displays should be kept relatively small in order to control the freshness and quality of the product offered to the public; and to encourage faster turnover.

Roughly 26 percent of the retailers had complaints about the quality of delivered fresh fish. About 41 percent of the complaints was that "fish are not fresh". Many other retailers reported the generally poor quality of fish. In the opinion of retailers quality is, by far, the most important factor affecting fish sales.

The chief problem in handling fresh fish was the lack of efficient display cases. Most retailers used their meat cases for fresh fish. These cabinets are not properly adapted for icing and consequently less than half the retailers utilized icing for their fresh fish while the fish were on display. Thus the quality of the fresh fish deteriorates rapidly and discourages sales. As losses occur, retailers become discouraged about handling the product.

Many retailers were of the opinion that fresh fish icing was desirable even in modern refrigerated cabinets. However, only a minority of those interviewed actually carried out the practice. Much work needs to be done by wholesalers in developing satisfactory display case utilization and in teaching retailers how to handle fresh fish properly.

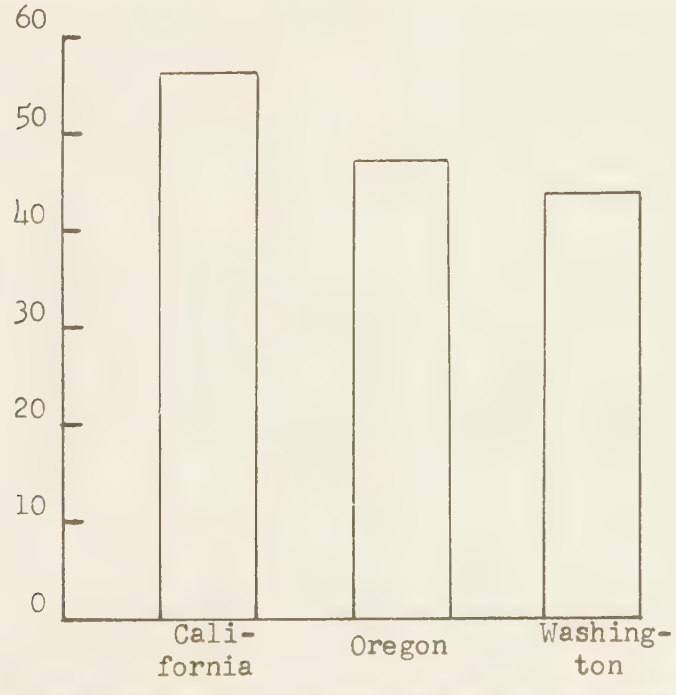



FIGURE - 10.--Percent of all stores using ice in fresh fish display cabinets, Pacific Coast States, 1955

## Frozen Packaged Fish and Shellfish

Frozen packaged fishery products were handled by more than 90 percent of the stores, as compared with only 54 percent selling fresh fish. In general, only the fresh fish markets and small neighborhood groceries did not sell frozen packaged fishery products.

About 47 percent of the frozen packaged fishery products was distributed to retailers by frozen food wholesalers. Salmon, halibut, sole, rockfishes, and crab accounted for more than 60 percent of the frozen packaged fishery products sold. Halibut and sole were the two most important items.

Only 9 percent of the retailers had complaints about frozen packaged fish. Most of the criticism was concerned with poor quality. Nearly 40 percent of the adverse comments mentioned off-flavor and off-color.

About 14 percent of the retailers kept the temperature of their frozen food cabinets above 0°F., or above that recommended by the supplier. One of four retailers did not know the temperature setting at which their frozen food display cabinets were then operating, nor did they recognize the significance of 0°F.,or below temperature for frozen fishery products.

Nearly 40 percent of the retailers determined their selling prices by marking up all fishery products a fixed percentage. The amount of markup was often the one suggested by the wholesale distributors. Forty-seven percent of the retailers carried frozen packaged fish as a profit item, while only 21 percent carried fresh fish as a profit item.

More than 40 percent of the retailers said that frozen packaged fish sales were increasing. Sixty-two percent of the supermarkets reported increases in sales. Increased sales were attributed mainly to modern display cases and to the availability of a greater variety of frozen fishery products. Only 19 percent of the retailers reported increases in fresh fish sales.

## Smoked Fish

Smoked salmon was sold by 62 to 68 percent of the retailers in Oregon and Washington, but by only 26 percent of the retailers in California. Only 11 percent of the retailers in the three states stocked smoked sablefish. Almost 38 percent of the retailers complained that the smoked fish received was not of uniform quality. Improved packaging was a suggestion offered by retailers when queried as to how smoked fish sales could be increased.

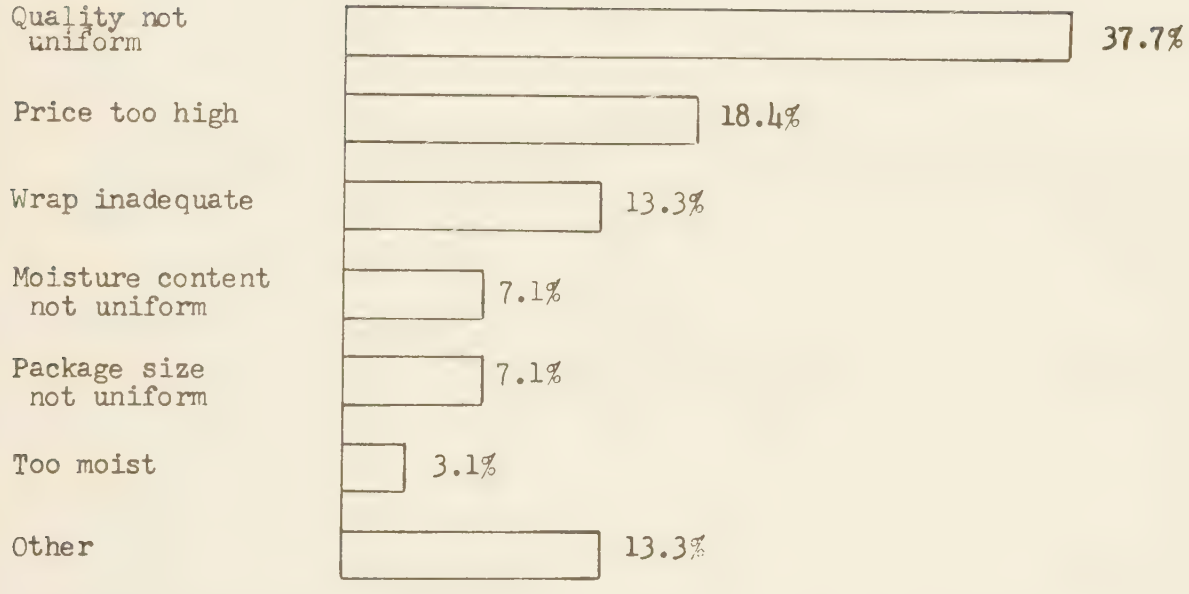



FIGURE - 11.--Complaints of retailers about smoked fish, Pacific Coast States, 1955

General Findings

Only about one out of four retailers did any promotion or advertising of fish. Advertising was more common among supermarkets. Newspapers were the most frequently used advertising medium.

Approximately 52 percent of total fish sales (value) at retail were fresh fish, 44 percent were frozen, and 4 percent were smoked. Fish sales represented 0.76 of one percent of the total store volume.

Retailer-Suggested Marketing Improvements

Marketing improvements suggested by retailers included the following:

(1) more frequent deliveries by wholesalers;

(2) improved packaging material for prepackaged fresh fish;

(3) more advertising by wholesalers; and

(4) greater standardization of packages for frozen fish.

## WHOLESALE DISTRIBUTION

### Type of Wholesalers and Products

Two general types of wholesalers were interviewed in this study, namely fish wholesalers and frozen food wholesalers. The latter group is composed of frozen food companies, dairies, wholesale grocers, produce companies, and ice companies. These firms distribute frozen packaged fishery products in conjunction with numerous other frozen food items. Wholesalers engaged primarily in the canned fish business were excluded.

Estimated total fish sales by Pacific Coast firms (many of which sell nationally) exceeded $169 million in 1955. Fresh fish sales accounted for about 39 percent of the total, and frozen packaged fish and shellfish for about 28 percent. Smoked fish was only about 3 percent and frozen whole fish equaled about 21 percent.

Twelve percent of the frozen packaged fishery products (by dollar volume) sold by the West Coast fish wholesalers originated in areas other than the Pacific Coast. A much larger percentage of the frozen fishery products sold by frozen food wholesalers came from other areas. It ranged from 56 percent in Washington to 37 percent in California and 31 percent in Oregon. Shrimp, scallops, and fishsticks were the most important products purchased from other areas.

"Not available locally" accounted for more than one-half of the reasons given for purchasing from other regions. One-fifth of the reasons given was that these products were cheaper. The tendency to buy from areas outside of the Pacific Coast was continuing and was expected to increase in the future.

Between 36 and 38 percent of the fresh and frozen fish sold by wholesalers went to retail stores. Twenty-one percent went to institutions such as restaurants, hotels, hospitals, etc. About 39 percent of the fresh and 29 percent of the frozen fish were sold to other wholesalers.

### Services Offered

Most wholesalers offered delivery service daily or twice weekly, but not to all customers. Fresh fish deliveries were made along special routes (up to 50 miles) in noninsulated trucks but with the fish iced. Frozen packaged fish commonly was delivered in insulated trucks with mechanical refrigeration equipment. However, a substantial percentage of the local deliveries of all fish was made from trucks without any refrigeration. This practice allows some thawing of the product which is detrimental to quality--particularly when fish is refrozen prior to sale.

Cabinets for displaying frozen fish generally were owned by the retailer. Only 2 percent of the wholesalers reported that they furnished display cabinets to retailers.

Nearly 60 percent of the wholesalers in the three states furnished ice for fresh fish displays at no extra direct charge. This practice was found to be much more prevalent in Washington and Oregon than in California.

Educational work by wholesalers to teach retailers how to handle fish was conducted by 27 percent of the fresh fish wholesalers and about 10 percent of the frozen food wholesalers.

About 70 percent of the fish wholesalers and 37 percent of the frozen food wholesalers did some advertising. The amount spent on advertising, however, was extremely small. It amounted to about 0.2 of one percent of sales in California, Oregon, and Washington. Only about 22 percent of the wholesalers planned to make even moderate increases in advertising expenditures.

## Facilities Used

More than one-half of the wholesalers owned or rented freezing facilities in addition to regular frozen storage space. The freezing units had an estimated average capacity of about 32,600 pounds per 24 hours. A large percentage of the wholesalers reported some inadequacies in their equipment during the peak of the season; however, sufficient supplementary public facilities were available. Eighty-five percent of the wholesalers operated frozen product storage facilities, with an estimated average capacity of more than 700,000 pounds. About 44 percent of the wholesalers in Washington and 10 percent in Oregon and California kept their frozen product storage above the recommended temperature of 0°F.

About 63 percent of the fish wholesalers had ice-making equipment with an average estimated capacity of 77,300 pounds per 24 hours. A large part of the total, however, was controlled by a few firms.

Losses due to spoilage of fish and shellfish products were reportedly very small among Pacific Coast wholesalers. Thirty-four percent of the California wholesalers, about 30 percent in Oregon, and 45 percent in Washington reported no loss due to spoilage. The remaining wholesalers had losses of 1 percent or less. Reported losses of frozen packaged products in the three States were even smaller.

## Suggestions and Opinions Offered by Wholesalers

Most wholesalers were of the opinion that new products could best be introduced to retailers and institutions through salesmen. Retail stores were reported to be generally receptive to new fishery products, although in California the competition between products for frozen food space inhibited the introduction of some new items.

Several important suggestions were offered by wholesalers on how quality might be improved. Proper care of fish on the boats (including better icing and proper stowing to eliminate bruises) was mentioned most often. Another important suggestion was that boats should make trips of shorter duration in order to improve the quality of the landings.

Better in-plant methods of determining the quality of frozen fish by means of improved inspection methods and adherence to sanitary codes were proposals often made by wholesalers. About 55 percent of the fish wholesalers favored Federal grade standards for fresh fish; 74 percent wanted grade standards for frozen packaged fish products.

Wholesalers, like retailers, were of the opinion that quality is by far the most important factor affecting fish sales. Price of fish and type of store display were the two other factors most frequently mentioned as having an important bearing on fish sales.

## RECOMMENDATIONS

### Consumer Education

(1) Considerably more advertising, promotional and educational work should be done by the trade. This is particularly important in the light of the tremendous influx of consumers from inland areas who are not accustomed to eating fish. Specific attention should be focused on the southern California market where per capita fish consumption is extremely low. This market contains a large proportion of the population in the three West Coast States.

(2) Wholesalers should undertake educational programs to encourage consumers to use methods other than frying in preparing fish. One of the important consumer complaints about fish is objectionable cooking odors. Such odors occur mainly with fried fish, especially if the quality of the fish has deteriorated.

### Retailer, Wholesaler Education

(1) The attitude and knowledge of retailers about fish is the key to successful merchandizing of the product. Organized educational programs should be undertaken to teach retailers the proper methods of handling fresh fish. In particular, the importance of icing fish on display should be stressed even where modern refrigeration cabinets are used. The icing of fish is by far the most satisfactory method yet found for keeping fresh fish from deteriorating rapidly, and at the same time providing an attractive retail display device.

(2) Retailers and wholesalers should be educated about proper storage temperatures for frozen packaged fish and about the maximum storage life for each species of frozen fish. A large proportion of the trade was uninformed on these matters.

### Service Improvement

(1) Wholesalers should take the lead in developing a satisfactory display case and procedure for fresh fish; that is, one in which ice can be used properly. In terms of the demand for floor space, technical information on how a portion of the meat case might be remodeled to permit adequate and attractive icing may have greater acceptance with retailers than a separate fish case.

(2) More frequent delivery of fresh fish to retail stores should be considered. The one day a week delivery, which the majority of the stores now receive, results in either poor quality fish part of the week or fish not being available much of the time.

(3) The practice of delivering frozen, packaged fish to retailers in trucks with no refrigeration should be discouraged. Currently it is a common method of handling fishery products.

Product Improvement

(1) The development of Federal grade standards should be encouraged for both fresh and frozen packaged fish.

(2) Wholesalers should encourage the development of more satisfactory packaging material for prepackaged fresh fish. Many additional stores, mainly supermarkets, would handle fresh fish if this were to be done.

(3) Greater stress should be placed on fish quality. Better in-plant methods for determining quality of fresh fish should be established; more rigid sanitary regulations should be enforced; and fishermen should be taught the importance of proper handling, including the proper icing of fish.

Tables Nos. 1 - 77

on

Consumer Purchases and Preferences

Items in the tables showing a reported number less than 14 and percentages based on a reported number less than 14 do not give reliable indications for the group to which they refer. They are shown for reference purposes only and should not be used as reliable indications for the group because of the small sample response.

Consumer households referred to in these tables are those purchasing fresh, frozen packaged, or smoked fish or shellfish, excluding canned fishery products.

## Fresh, Frozen, Packaged, or Smoked Fish or Shellfish

TABLE - 1.--CONSUMER HOUSEHOLDS PURCHASING FRESH, FROZEN PACKAGED, OR SMOKED FISH OR SHELLFISH, PACIFIC COAST STATES, 1956

| State | Households purchasing fish | | | | | |
|---|---|---|---|---|---|---|
| | Number | | | Percent | | |
| | Yes | No | Total | Yes | No | Total |
| California | 1,131 | 413 | 1,544 | 73.3 | 26.7 | 100.0 |
| Washington | 254 | 83 | 337 | 75.4 | 24.6 | 100.0 |
| Oregon | 128 | 55 | 183 | 70.0 | 30.0 | 100.0 |
| Three states | 1,513 | 551 | 2,064 | 73.3 | 26.7 | 100.0 |

TABLE - 2.--REASONS FOR NOT PURCHASING FRESH, FROZEN PACKAGED OR SMOKED FISH OR SHELLFISH, PACIFIC COAST STATES, 1956

| Reasons for not purchasing fish | Number of answers | | | | Percent of answers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Wash. | Oreg. | Three states | Calif. | Wash. | Oreg. | Three states |
| Don't like | 199 | 24 | 21 | 244 | 46.7 | 28.6 | 34.4 | 42.7 |
| Catch own | 65 | 32 | 19 | 116 | 15.3 | 38.0 | 31.2 | 20.3 |
| Prefer canned | 56 | 5 | 8 | 69 | 13.1 | 6.0 | 13.1 | 12.1 |
| Not accustomed to eating | 17 | 6 | 3 | 26 | 4.0 | 7.1 | 4.9 | 4.6 |
| Not available | 9 | 3 | 4 | 16 | 2.1 | 3.6 | 6.6 | 2.8 |
| Don't like odor | 9 | 1 | 1 | 11 | 2.1 | 1.2 | 1.6 | 1.9 |
| Other | 71 | 13 | 5 | 89 | 16.7 | 15.5 | 8.2 | 15.6 |
| Total | 426 | 84 | 61 | 571 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 3.--CONSUMER HOUSEHOLDS PURCHASING FRESH FISH, PACIFIC COAST STATES, 1956

| State | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| California | 1,544 | 1,131 | 817 | 52.9 | 72.2 |
| Oregon | 183 | 128 | 117 | 63.9 | 91.4 |
| Washington | 337 | 254 | 232 | 68.8 | 91.3 |
| Three states | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 4.--CONSUMER HOUSEHOLDS PURCHASING FRESH FISH, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Area | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| I | 804 | 623 | 558 | 69.4 | 89.6 |
| II | 898 | 649 | 429 | 47.8 | 66.1 |
| III | 102 | 79 | 66 | 64.7 | 83.5 |
| IV | 132 | 80 | 43 | 32.6 | 53.8 |
| V | 128 | 82 | 70 | 54.7 | 85.4 |
| All areas | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 5.--RELATIONSHIP OF CITY SIZE TO FRESH FISH PURCHASES, PACIFIC COAST STATES, 1956

| City size | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| I (2,500 or less) | 207 | 127 | 103 | 49.8 | 81.1 |
| II (2,500 - 50,000) | 241 | 165 | 130 | 53.9 | 78.8 |
| III (More than 50,000) Metro-suburban | 655 | 499 | 362 | 55.3 | 72.5 |
| IV (More than 50,000) Metro-politan | 961 | 722 | 571 | 59.4 | 79.1 |
| All cities | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 6.--RELATIONSHIP BETWEEN THE PROFESSION OF THE HEAD OF THE HOUSEHOLD AND FRESH FISH PURCHASES, PACIFIC COAST STATES, 1956

| Profession | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| Professional and technical | 230 | 202 | 159 | 69.1 | 78.7 |
| Managers, officials, and proprietors | 286 | 228 | 186 | 65.0 | 81.6 |
| Farmers and ranchers | 73 | 55 | 42 | 57.5 | 76.4 |
| Clerical, sales, and kindred workers | 234 | 168 | 128 | 54.7 | 76.2 |
| Craftsmen, foremen, operatives, and kindred workers | 525 | 400 | 287 | 54.7 | 71.8 |
| Service and household workers | 128 | 90 | 70 | 54.7 | 77.8 |
| Laborers except farm and mine | 216 | 139 | 115 | 53.2 | 82.7 |
| Retired, housewives, and unemployed | 323 | 200 | 155 | 48.0 | 77.5 |
| Farm laborers and foremen | 40 | 23 | 16 | 40.0 | 69.6 |
| Others and refused | 9 | 8 | 8 | 88.9 | 100.0 |
| All professions | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 7.--RELATIONSHIP OF FAMILY INCOME TO FRESH FISH PURCHASES, PACIFIC COAST STATES, 1956

| Income group | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| Under $2,000 | 248 | 155 | 121 | 48.8 | 78.1 |
| $2,000 to $3,999 | 514 | 321 | 251 | 48.8 | 78.2 |
| $4,000 to $5,999 | 599 | 484 | 367 | 61.3 | 75.8 |
| $6,000 to $7,999 | 253 | 221 | 166 | 65.6 | 75.1 |
| $8,000 to $9,999 | 118 | 95 | 75 | 63.6 | 78.9 |
| $10,000 or more | 82 | 73 | 57 | 69.5 | 78.1 |
| Refused | 64 | 38 | 28 | 43.8 | 73.7 |
| Don't know | 186 | 126 | 101 | 54.3 | 80.2 |
| All income groups | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 8.--RELATIONSHIP BETWEEN YEARS OF SCHOOLING COMPLETED BY THE HOUSEWIFE AND PURCHASES OF FRESH FISH, PACIFIC COAST STATES, 1956

| Years of schooling completed | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| Less than 4 | 32 | 21 | 16 | 50.0 | 76.2 |
| 4 to 6 | 79 | 44 | 38 | 48.1 | 86.4 |
| 7 to 8 | 330 | 198 | 151 | 45.8 | 76.3 |
| 9 to 12 | 1,084 | 818 | 620 | 57.2 | 75.8 |
| 13 to 16 | 464 | 380 | 292 | 62.9 | 76.8 |
| More than 16 | 30 | 26 | 24 | 80.0 | 92.3 |
| Other | 45 | 26 | 25 | 55.6 | 96.2 |
| All groups | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 9.--FRESH FISH PURCHASES, BY AREAS OF PRIOR RESIDENCE, PACIFIC COAST STATES, 1956

| Area of prior residence | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| Pacific Coast States | 668 | 517 | 427 | 63.9 | 82.6 |
| North Atlantic States | 198 | 162 | 130 | 65.7 | 80.2 |
| South Atlantic States | 39 | 27 | 13 | 33.3 | 48.1 |
| North Central States | 541 | 383 | 272 | 50.3 | 71.0 |
| South Central States | 243 | 158 | 116 | 47.7 | 73.4 |
| Mountain States | 223 | 153 | 112 | 50.2 | 73.2 |
| Canada | 30 | 24 | 22 | 73.3 | 91.7 |
| Mexico | 18 | 8 | 7 | 38.9 | 87.5 |
| Europe | 54 | 40 | 34 | 63.0 | 85.0 |
| Other | 50 | 41 | 33 | 66.0 | 80.5 |
| All households | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 10.--PURCHASE OF FRESH FISH, BY YEARS OF RESIDENCE, PACIFIC COAST STATES, 1956

| Years in State | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| 1 or less | 93 | 59 | 34 | 36.6 | 57.6 |
| 2 to 5 | 224 | 158 | 110 | 49.1 | 69.6 |
| 6 to 10 | 260 | 201 | 154 | 59.2 | 76.6 |
| 11 or more | 1,487 | 1,095 | 868 | 58.4 | 79.3 |
| All groups | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 11.--PURCHASE OF FRESH FISH, BY RELIGIOUS GROUPS, PACIFIC COAST STATES, 1956

| Religious preference | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| Protestant | 1,370 | 998 | 758 | 55.3 | 76.0 |
| Catholic | 485 | 364 | 283 | 58.4 | 77.7 |
| Jewish | 60 | 52 | 44 | 73.3 | 84.6 |
| No preference | 95 | 59 | 43 | 45.3 | 72.9 |
| Other | 54 | 40 | 38 | 70.4 | 95.0 |
| All groups | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 12.--PURCHASE OF FRESH FISH, BY RACIAL GROUPS, PACIFIC COAST STATES, 1956

| Racial groups | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| White | 1,904 | 1,404 | 1,067 | 56.0 | 76.0 |
| Negro | 85 | 61 | 55 | 64.7 | 90.2 |
| Oriental | 26 | 23 | 23 | 88.5 | 100.0 |
| Mexican | 28 | 9 | 7 | 25.0 | 77.8 |
| Other | 21 | 16 | 14 | 66.6 | 88.0 |
| All groups | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 13.--PURCHASE OF FRESH FISH, BY NONFARM AND FARM HOUSEHOLDS, PACIFIC COAST STATES, 1956

| Farm or nonfarm | Number of households | | | Households buying fresh fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Buying fish | Buying fresh fish | Total studied | Those buying fish |
| Nonfarm | 1,931 | 1,423 | 1,095 | 56.7 | 77.0 |
| Farm | 133 | 90 | 71 | 53.4 | 78.9 |
| All groups | 2,064 | 1,513 | 1,166 | 56.5 | 77.1 |

TABLE - 14.--KINDS OF FRESH FISH AND SHELLFISH PURCHASED BY CONSUMER HOUSEHOLDS, PACIFIC COAST STATES, 1956

| Species | Number of households buying selected fresh fish | | | | Households buying fresh fish as percent of | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Those buying fish | | | | Total studied | | | |
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| Salmon | 441 | 83 | 167 | 691 | 54.0 | 70.9 | 72.0 | 59.3 | 28.6 | 45.4 | 49.6 | 33.5 |
| Halibut | 487 | 70 | 133 | 690 | 59.6 | 59.8 | 57.3 | 59.2 | 31.5 | 38.3 | 39.5 | 33.4 |
| Sole | 432 | 52 | 115 | 599 | 52.9 | 44.4 | 49.6 | 51.4 | 28.0 | 28.4 | 34.1 | 29.0 |
| Rockfishes | 241 | 47 | 109 | 397 | 29.5 | 40.2 | 47.0 | 34.0 | 15.6 | 25.7 | 32.3 | 19.2 |
| Crab | 289 | 63 | 109 | 461 | 35.4 | 53.8 | 47.0 | 39.5 | 18.7 | 34.4 | 32.3 | 22.3 |
| Shrimp | 226 | 10 | 41 | 277 | 27.7 | 8.5 | 17.7 | 23.8 | 14.6 | 5.5 | 12.2 | 13.4 |
| Other bottomfish | 105 | 3 | 12 | 120 | 12.9 | 2.6 | 5.2 | 10.3 | 6.8 | 1.6 | 3.6 | 5.8 |
| Other shellfish 1/ | 150 | 29 | 54 | 233 | 18.4 | 24.8 | 23.3 | 20.0 | 9.7 | 15.8 | 16.0 | 11.3 |
| Pelagic fish 2/ | 117 | 41 | 56 | 214 | 14.3 | 35.0 | 24.1 | 18.4 | 7.6 | 22.4 | 16.6 | 10.4 |
| Fresh water fish | 74 | 6 | 2 | 82 | 9.1 | 5.1 | 0.9 | 7.0 | 4.8 | 3.3 | 0.6 | 4.0 |
| Other | 17 | 2 | 2 | 21 | 2.1 | 1.7 | 0.9 | 1.8 | 1.1 | 1.1 | 0.6 | 1.0 |
| All fresh fish | 817 | 117 | 232 | 1,166 | 72.2 | 91.4 | 91.3 | 77.1 | 52.9 | 63.9 | 68.8 | 56.5 |

1/ Includes abalone, clams, oysters, and lobsters.

2/ This term means open ocean or free swimming. It is used in contrast to the fish spending most of their lives on the bottom of the ocean. Included in this classification are tuna, swordfish, barracuda, herring, smelt, and mackerel.

TABIE - 15.--KINDS OF FRESH FISH AND SHELLFISH PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Species | Households purchasing fresh fish | | | | | |
|---|---|---|---|---|---|---|
| | Number by areas | | | | | |
| | I | II | III | IV | V | All areas |
| Salmon | 367 | 222 | 32 | 23 | 47 | 691 |
| Halibut | 301 | 285 | 36 | 28 | 40 | 690 |
| Sole | 343 | 175 | 37 | 17 | 27 | 599 |
| Rockfishes | 194 | 118 | 31 | 12 | 42 | 397 |
| Crab | 320 | 73 | 30 | 10 | 28 | 461 |

| Species | Households purchasing fresh fish | | | | | |
|---|---|---|---|---|---|---|
| | Percent by areas | | | | | |
| | I | II | III | IV | V | All areas |
| Salmon | 65.8 | 51.7 | 48.5 | 53.5 | 67.1 | 59.3 |
| Halibut | 53.9 | 66.4 | 54.5 | 65.1 | 57.1 | 59.2 |
| Sole | 61.5 | 40.8 | 56.1 | 39.5 | 38.6 | 51.4 |
| Rockfishes | 34.8 | 27.5 | 47.0 | 27.9 | 60.0 | 34.0 |
| Crab | 57.3 | 17.0 | 45.5 | 23.3 | 40.0 | 39.5 |

TABLE - 16.--CONSUMER HOUSEHOLD PURCHASES OF FISH AND SHELLFISH, BY CITY SIZE, PACIFIC COAST STATES, 1956

| Species | City size | | | | Total |
|---|---|---|---|---|---|
| | I Less than 2,500 | II 2,500 to 50,000 | III Over 50,000 (metro-suburban) | IV Over 50,000 (metropolitan) | |
| | Number of households purchasing | | | | |
| Salmon | 64 | 90 | 178 | 359 | 691 |
| Halibut | 52 | 76 | 210 | 352 | 690 |
| Sole | 42 | 62 | 196 | 299 | 599 |
| Rockfishes | 48 | 39 | 128 | 182 | 397 |
| Crab | 40 | 50 | 143 | 228 | 461 |
| | Percent of all households interviewed | | | | |
| Salmon | 30.9 | 37.3 | 27.2 | 37.4 | 33.5 |
| Halibut | 25.1 | 31.5 | 32.1 | 36.6 | 33.4 |
| Sole | 20.3 | 25.7 | 29.9 | 31.1 | 29.0 |
| Rockfishes | 23.2 | 16.2 | 19.5 | 18.9 | 19.2 |
| Crab | 19.3 | 20.7 | 21.8 | 23.7 | 22.3 |
| | Percent of those households buying fresh fish | | | | |
| Salmon | 62.1 | 69.2 | 49.2 | 62.9 | 59.3 |
| Halibut | 50.5 | 58.5 | 58.0 | 61.6 | 59.2 |
| Sole | 40.8 | 47.7 | 54.1 | 52.4 | 51.4 |
| Rockfishes | 46.6 | 30.0 | 35.4 | 31.9 | 34.0 |
| Crab | 38.8 | 38.5 | 39.5 | 39.9 | 39.5 |

TABLE - 17.--RELATIONSHIP OF INCOME TO KIND OF FRESH FISH AND SHELLFISH PURCHASED BY PACIFIC COAST CONSUMERS, 1956

| Species | Households purchasing selected fresh fish by income groups | | | | | | |
|---|---|---|---|---|---|---|---|
| | Under $2,000 | $2,000-$3,999 | $4,000-$5,999 | $6,000-$7,999 | $8,000-$9,999 | Over $10,000 | Income refused |
| | Number of households | | | | | | |
| Salmon | 63 | 146 | 230 | 97 | 43 | 41 | 16 |
| Halibut | 62 | 133 | 239 | 99 | 43 | 34 | 23 |
| Sole | 74 | 113 | 191 | 79 | 39 | 34 | 9 |
| Rockfishes | 44 | 98 | 122 | 48 | 18 | 16 | 9 |
| Crab | 30 | 77 | 164 | 76 | 35 | 27 | 6 |
| | Percent of all households | | | | | | |
| Salmon | 25.4 | 28.4 | 38.4 | 38.3 | 36.4 | 50.0 | 25.0 |
| Halibut | 25.0 | 25.9 | 39.9 | 39.1 | 36.4 | 41.5 | 35.9 |
| Sole | 29.8 | 22.0 | 31.9 | 31.2 | 33.1 | 41.5 | 14.1 |
| Rockfishes | 17.7 | 19.1 | 20.4 | 19.0 | 15.3 | 19.5 | 14.1 |
| Crab | 12.1 | 15.0 | 27.4 | 30.0 | 29.7 | 32.9 | 9.4 |
| | Percent of those households buying fresh fish | | | | | | |
| Salmon | 52.1 | 58.2 | 62.7 | 58.4 | 57.3 | 71.9 | 57.1 |
| Halibut | 51.2 | 53.0 | 65.1 | 59.6 | 57.3 | 59.6 | 82.1 |
| Sole | 61.2 | 45.0 | 52.0 | 47.6 | 52.0 | 59.6 | 32.1 |
| Rockfishes | 36.4 | 39.0 | 33.2 | 28.9 | 24.0 | 28.1 | 32.1 |
| Crab | 24.8 | 30.7 | 44.7 | 45.8 | 46.7 | 47.4 | 21.4 |

TABLE - 18.--RELATIONSHIP OF LENGTH OF RESIDENCE ON THE PACIFIC COAST AND KINDS OF FRESH FISH AND SHELLFISH PURCHASED, 1956

| Species | Households purchasing selected fresh fish by length of residence | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Households buying fish | | | | All households | | | |
| | 1 yr. or less | 2-5 yrs. | 6-10 yrs. | 11 yrs. or more | 1 yrs. or less | 2-5 yrs. | 6-10 yrs. | 11 yrs. or more |
| | Percent | | | | Percent | | | |
| Salmon | 47.1 | 57.3 | 59.7 | 84.0 | 17.2 | 28.1 | 35.4 | 35.0 |
| Halibut | 44.1 | 57.3 | 55.2 | 85.1 | 16.1 | 28.1 | 32.7 | 35.4 |
| Sole | 29.4 | 49.1 | 48.7 | 74.3 | 10.8 | 24.1 | 28.8 | 30.9 |
| Rockfishes | 29.4 | 32.7 | 32.5 | 48.6 | 10.8 | 16.1 | 19.2 | 20.2 |
| Crab | 14.7 | 37.3 | 35.1 | 58.3 | 5.4 | 18.3 | 20.8 | 24.3 |

TABLE - 19.--CONSUMER KNOWLEDGE OF THE AVAILABILITY OF FRESH FISH AND SHELLFISH PRODUCTS, PACIFIC COAST STATES, 1956

| Species | Households answering | | | |
|---|---|---|---|---|
| | Available | Not available | Don't know | Total |
| | | Number | | |
| Salmon | 475 | 173 | 43 | 691 |
| Halibut | 480 | 165 | 45 | 690 |
| Sole | 400 | 158 | 41 | 599 |
| Rockfishes | 260 | 93 | 44 | 397 |
| Crab | 266 | 154 | 41 | 461 |
| | | Percent | | |
| Salmon | 68.8 | 25.0 | 6.2 | 100.0 |
| Halibut | 69.6 | 23.9 | 6.5 | 100.0 |
| Sole | 66.8 | 26.4 | 6.8 | 100.0 |
| Rockfishes | 65.5 | 23.4 | 11.1 | 100.0 |
| Crab | 57.7 | 33.4 | 8.9 | 100.0 |

TABLE - 20.--TYPE OF STORE WHERE FRESH FISH WERE PURCHASED, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing fresh fish | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| | Number | | | | Percent | | | |
| Fish market | 305 | 34 | 82 | 421 | 37.3 | 29.1 | 35.4 | 36.1 |
| Supermarket | 293 | 41 | 64 | 398 | 35.9 | 35.0 | 27.6 | 34.1 |
| Meat market | 50 | 13 | 11 | 74 | 6.1 | 11.1 | 4.7 | 6.4 |
| Delicatessen | 36 | 12 | 19 | 67 | 4.4 | 10.3 | 8.2 | 5.7 |
| Grocery store | 47 | 1 | 9 | 57 | 5.8 | 0.9 | 3.9 | 4.9 |
| Other | 86 | 16 | 47 | 149 | 10.5 | 13.6 | 20.2 | 12.8 |
| All stores | 817 | 117 | 232 | 1,166 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 21.--TYPE OF STORE WHERE FRESH FISH WERE PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Geographic area | Households purchasing fresh fish | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fish market | Super-market | Meat market | Delica-tessen | Grocery store | Other | Total |
| | | | | Number | | | |
| I | 230 | 144 | 43 | 47 | 21 | 73 | 558 |
| II | 142 | 184 | 14 | 14 | 27 | 48 | 429 |
| III | 28 | 18 | 9 | 1 | 5 | 5 | 66 |
| IV | 15 | 17 | - | - | 3 | 8 | 43 |
| V | 6 | 35 | 8 | 5 | 1 | 15 | 70 |
| All areas | 421 | 398 | 74 | 67 | 57 | 149 | 1,166 |
| | | | | Percent | | | |
| I | 41.2 | 25.8 | 7.7 | 8.4 | 3.8 | 13.1 | 100.0 |
| II | 33.1 | 42.9 | 3.3 | 3.3 | 6.3 | 11.1 | 100.0 |
| III | 42.4 | 27.3 | 13.6 | 1.5 | 7.6 | 7.6 | 100.0 |
| IV | 34.9 | 39.5 | - | - | 7.0 | 18.6 | 100.0 |
| V | 8.6 | 50.0 | 11.4 | 7.2 | 1.4 | 21.4 | 100.0 |
| All areas | 36.1 | 34.1 | 6.3 | 5.8 | 4.9 | 12.8 | 100.0 |

TABLE - 22.--TYPE OF STORE WHERE FRESH FISH WERE PURCHASED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Income groups | Households purchasing fresh fish | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fish market | Super-market | Meat market | Grocery store | Delica-tessen | Other 1/ | Other |
| | Percent | | | | | | |
| Under $2,000 | 29.8 | 37.2 | 5.8 | 3.3 | 6.6 | 17.3 | 100.0 |
| $2,000 to 3,999 | 35.0 | 30.3 | 8.8 | 6.4 | 4.0 | 15.5 | 100.0 |
| $4,000 to 5,999 | 36.8 | 36.0 | 6.5 | 4.5 | 4.2 | 12.0 | 100.0 |
| $6,000 to 7,999 | 32.5 | 34.4 | 3.6 | 6.0 | 11.5 | 12.0 | 100.0 |
| $8,000 to 9,999 | 41.4 | 32.0 | 1.3 | 5.3 | 10.7 | 9.3 | 100.0 |
| $10,000 or more | 33.3 | 47.3 | 5.3 | 5.3 | 3.5 | 5.3 | 100.0 |
| Refused | 39.2 | 28.6 | 14.3 | 7.2 | - | 10.7 | 100.0 |
| Don't know | 46.5 | 28.7 | 6.9 | 1.0 | 5.0 | 11.9 | 100.0 |
| All groups | 36.1 | 34.1 | 6.3 | 4.9 | 5.8 | 12.8 | 100.0 |

1/ Includes those households that marked two types of stores -- street peddlers and retail outlets not included in above.

TABLE - 23.--COMPLAINTS ABOUT THE HANDLING OF FRESH FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1956

| Type of store | Complaints about fresh fish | | | | | |
|---|---|---|---|---|---|---|
| | Not fresh | Not iced | Poor display | Frozen and thawed | Other | Total |
| | | | Number | | | |
| Fish market | 17 | - | 2 | 2 | 18 | 39 |
| Supermarket | 24 | 2 | 1 | 3 | 21 | 51 |
| Meat market | 5 | - | - | 2 | 1 | 8 |
| Grocery store | 20 | - | - | - | 6 | 26 |
| Fish peddler | 8 | 1 | - | 1 | - | 10 |
| Other | 8 | - | 1 | - | 10 | 19 |
| Total | 82 | 3 | 4 | 8 | 56 | 153 |
| | | | Percent | | | |
| Fish market | 43.6 | - | 5.1 | 5.1 | 46.2 | 100.0 |
| Supermarket | 47.0 | 3.9 | 2.0 | 5.9 | 41.2 | 100.0 |
| Meat market | 62.5 | - | - | 25.0 | 12.5 | 100.0 |
| Grocery store | 76.9 | - | - | - | 23.1 | 100.0 |
| Fish peddler | 80.0 | 10.0 | - | 10.0 | - | 100.0 |
| Other | 42.1 | - | 5.3 | - | 52.6 | 100.0 |
| All stores | 53.6 | 2.0 | 2.6 | 5.2 | 36.6 | 100.0 |

TABLE - 24.--CONSUMER PREFERENCE FOR PREPACKAGED FRESH FISH, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Area | Number of households buying fresh fish | Preference for prepackaged fresh fish | | | |
|---|---|---|---|---|---|
| | | Prefer prepackaged | Prefer no prepackaging | No preference | Total |
| | | Percent | Percent | Percent | Percent |
| I | 558 | 12.4 | 78.8 | 8.8 | 100.0 |
| II | 429 | 17.0 | 73.7 | 9.3 | 100.0 |
| III | 66 | 12.1 | 84.9 | 3.0 | 100.0 |
| IV | 43 | 20.9 | 69.8 | 9.3 | 100.0 |
| V | 70 | 35.7 | 51.4 | 12.9 | 100.0 |
| All areas | 1,166 | 15.8 | 75.3 | 8.9 | 100.0 |

TABLE - 25.--TYPE OF PACKAGE PREFERRED FOR FRESH FISH, PACIFIC COAST STATES, 1956

| Type of package | Preference for type of package | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Number of respondents | 109 | 19 | 56 | 184 |
| | Percent | Percent | Percent | Percent |
| Cardboard tray with transparent wrapper | 35.8 | 31.6 | 51.8 | 40.2 |
| Transparent wrapper | 28.4 | 52.6 | 21.4 | 28.8 |
| No preference | 35.8 | 15.8 | 26.8 | 31.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 26.--REASONS FOR NOT PURCHASING MORE FRESH FISH, PACIFIC COAST STATES, 1956

| Reasons | Number of answers | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Eating enough now | 355 | 38 | 66 | 459 |
| Don't like | 108 | 23 | 27 | 158 |
| Not available | 72 | 14 | 26 | 112 |
| Catch ample supply | 51 | 11 | 31 | 93 |
| Price too high | 30 | 12 | 31 | 73 |
| Fish not fresh | 33 | 2 | 9 | 44 |
| No special reason | 80 | 17 | 25 | 122 |
| Other | 136 | 13 | 41 | 190 |
| Total reasons | 865 | 130 | 256 | 1,251 |
| | Percent of users | | | |
| Eating enough now | 43.5 | 32.5 | 28.4 | 39.4 |
| Don't like | 13.2 | 19.7 | 11.6 | 13.5 |
| Not available | 8.8 | 12.0 | 11.2 | 9.6 |
| Catch ample supply | 6.2 | 9.4 | 13.3 | 8.0 |
| Price too high | 3.7 | 10.2 | 13.4 | 6.2 |
| Fish not fresh | 4.0 | 1.7 | 3.9 | 3.8 |
| No special reason | 9.8 | 14.5 | 10.8 | 10.5 |
| Other | 16.6 | 11.1 | 17.7 | 16.3 |

Note: 1,166 households purchasing fresh fish. Some households gave more than one answer.

TABLE - 27.--REASONS FOR NOT PURCHASING MORE FRESH FISH AND SHELLFISH BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Reasons | Number of answers by areas | | | | | |
|---|---|---|---|---|---|---|
| | I | II | III | IV | V | All areas |
| Eat enough now | 204 | 197 | 27 | 12 | 19 | 459 |
| Don't like odor | 77 | 65 | 8 | 5 | 3 | 158 |
| Not available | 51 | 24 | 11 | 15 | 11 | 112 |
| Catch ample supply | 46 | 25 | 6 | 6 | 10 | 93 |
| Price too high | 40 | 17 | 4 | 2 | 10 | 73 |
| Fish not fresh | 15 | 24 | 1 | 2 | 2 | 44 |
| No special reason | 73 | 33 | 6 | 2 | 8 | 122 |
| Other | 87 | 75 | 7 | 4 | 17 | 190 |
| Total | 593 | 460 | 70 | 48 | 80 | 1,251 |
| | Percent of users | | | | | |
| Eat enough now | 36.6 | 45.9 | 40.9 | 27.9 | 27.1 | 39.4 |
| Don't like odor | 13.8 | 15.1 | 12.1 | 11.6 | 4.3 | 13.5 |
| Not available | 9.1 | 5.6 | 16.7 | 34.9 | 15.7 | 9.6 |
| Catch ample supply | 8.2 | 5.8 | 9.1 | 14.0 | 14.3 | 8.0 |
| Price too high | 7.2 | 4.0 | 6.1 | 4.6 | 14.3 | 6.2 |
| Fish not fresh | 2.7 | 5.6 | 1.5 | 4.7 | 2.9 | 3.8 |
| No special reason | 13.1 | 7.7 | 9.1 | 4.6 | 11.4 | 10.5 |
| Other | 15.6 | 17.5 | 10.6 | 9.3 | 24.3 | 16.3 |

TABLE - 28.--HOUSEHOLDS PURCHASING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

| State | Number purchasing frozen packaged fish | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Yes | No | Total | Total studied | Those buying fish |
| California | 797 | 334 | 1,131 | 51.6 | 70.5 |
| Oregon | 87 | 41 | 128 | 47.5 | 68.0 |
| Washington | 125 | 129 | 254 | 37.1 | 49.2 |
| Three states | 1,009 | 504 | 1,513 | 48.9 | 66.7 |

TABLE - 29.--HOUSEHOLDS PURCHASING FROZEN PACKAGED FISH, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Area | Number of households | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying frozen packaged fish | Total studied | Those buying fish |
| I | 804 | 623 | 372 | 46.3 | 59.7 |
| II | 898 | 649 | 472 | 52.6 | 72.7 |
| III | 102 | 79 | 52 | 51.0 | 65.8 |
| IV | 132 | 80 | 69 | 52.3 | 86.3 |
| V | 128 | 82 | 44 | 34.4 | 53.7 |
| Total | 2,064 | 1,513 | 1,009 | 48.9 | 66.7 |

TABLE - 30.--PURCHASE OF FROZEN PACKAGED FISH, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Income groups | Number of households | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying frozen packaged fish | Total studied | Those buying fish |
| Under $2,000 | 248 | 155 | 84 | 33.9 | 54.2 |
| $2,000 to 3,999 | 514 | 321 | 198 | 38.5 | 61.7 |
| $4,000 to 5,999 | 599 | 484 | 336 | 56.1 | 69.4 |
| $6,000 to 7,999 | 253 | 221 | 169 | 66.8 | 76.5 |
| $8,000 to 9,999 | 118 | 95 | 66 | 55.9 | 69.5 |
| $10,000 or more | 82 | 73 | 61 | 74.4 | 83.6 |
| Income refused | 64 | 38 | 22 | 34.4 | 57.9 |
| Don't know | 186 | 126 | 73 | 39.2 | 57.9 |
| All groups | 2,064 | 1,513 | 1,009 | 48.9 | 66.7 |

TABLE - 31.--PURCHASE OF FROZEN PACKAGED FISH, BY YEARS OF SCHOOLING COMPLETED BY HOUSEWIFE, PACIFIC COAST STATES, 1956

| Years of schooling completed | Number of households | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying frozen packaged fish | Total studied | Those buying fish |
| Less than 4 | 32 | 21 | 11 | 34.4 | 52.4 |
| 4 to 6 | 79 | 44 | 17 | 21.5 | 38.6 |
| 7 to 8 | 330 | 198 | 105 | 31.8 | 53.0 |
| 9 to 12 | 1,084 | 818 | 564 | 52.0 | 68.9 |
| 13 to 16 | 464 | 380 | 284 | 61.2 | 74.7 |
| More than 16 | 30 | 26 | 18 | 60.0 | 69.2 |
| Refused or don't know | 45 | 26 | 10 | 22.2 | 38.5 |
| Total | 2,064 | 1,513 | 1,009 | 48.9 | 66.7 |

TABLE - 32.--PURCHASE OF FROZEN PACKAGED FISH, BY PRIOR RESIDENCE, PACIFIC COAST STATES, 1956

| Prior residence | Number of households | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying frozen packaged fish | Total studied | Those buying fish |
| Native | 668 | 517 | 335 | 50.1 | 64.8 |
| North Atlantic | 198 | 162 | 114 | 57.6 | 70.4 |
| South Atlantic | 39 | 27 | 20 | 51.3 | 74.1 |
| North Central | 541 | 383 | 262 | 48.4 | 68.4 |
| South Central | 243 | 158 | 108 | 44.4 | 68.4 |
| Mountain | 223 | 153 | 116 | 52.0 | 75.8 |
| Canada | 30 | 24 | 12 | 40.0 | 50.0 |
| Mexico | 18 | 8 | 1 | 5.6 | 12.5 |
| Europe | 54 | 40 | 18 | 33.3 | 45.0 |
| Other | 50 | 41 | 23 | 46.0 | 56.0 |
| All groups | 2,064 | 1,513 | 1,009 | 48.9 | 66.7 |

TABLE - 33.--PURCHASE OF FROZEN PACKAGED FISH, BY LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

| Years of residence | Number of households | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying frozen packaged fish | Total studied | Those buying fish |
| 0 to 1 | 93 | 59 | 44 | 47.3 | 74.6 |
| 2 to 5 | 224 | 158 | 115 | 51.3 | 72.8 |
| 6 to 10 | 260 | 201 | 136 | 52.3 | 67.7 |
| 11 or more | 1,487 | 1,095 | 714 | 48.0 | 65.2 |
| All groups | 2,064 | 1,513 | 1,009 | 48.9 | 66.7 |

TABLE - 34.--PURCHASE OF FROZEN PACKAGED FISH, BY RELIGIOUS GROUPS, PACIFIC COAST STATES, 1956

| Religious preference | Number of households | | | Households buying frozen packaged fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying frozen packaged fish | Total studied | Those buying fish |
| Protestant | 1,370 | 998 | 659 | 48.1 | 66.0 |
| Catholic | 485 | 364 | 261 | 53.8 | 71.7 |
| Jewish | 60 | 52 | 18 | 30.0 | 34.6 |
| No preference | 95 | 59 | 51 | 53.7 | 86.4 |
| Other | 54 | 40 | 20 | 37.0 | 50.0 |
| All groups | 2,064 | 1,513 | 1,009 | 48.9 | 66.7 |

TABLE - 35.--REASONS FOR NOT PURCHASING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

| Reasons | Number of answers | | | | Percent of answers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Three states |
| No special reason | 32 | 4 | 21 | 57 | 8.4 | 8.8 | 15.3 | 10.0 |
| Prefer fresh fish | 224 | 15 | 63 | 302 | 58.9 | 32.6 | 46.0 | 53.6 |
| No flavor | 33 | 8 | 8 | 49 | 8.7 | 17.4 | 5.8 | 8.7 |
| Not accustomed to eating | 24 | 2 | 7 | 33 | 6.3 | 4.3 | 5.1 | 5.9 |
| Catch own fresh fish | 8 | 2 | 10 | 20 | 2.2 | 4.3 | 7.3 | 3.6 |
| Price too high | 12 | 2 | 6 | 20 | 3.2 | 4.3 | 4.4 | 3.6 |
| Quality not uniformly good | 10 | 5 | 4 | 19 | 2.6 | 10.9 | 3.0 | 3.4 |
| Other | 37 | 8 | 18 | 63 | 9.7 | 17.4 | 13.1 | 11.2 |
| Total | 380 | 46 | 137 | 563 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: 504 households purchasing frozen packaged fish. Some households gave more than one answer.

TABLE - 36.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED, PACIFIC COAST STATES, 1956

| Species | Households purchasing frozen packaged fish | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| | Number purchasing each kind | | | |
| Salmon | 180 | 16 | 34 | 230 |
| Halibut | 358 | 24 | 35 | 417 |
| Sole | 391 | 37 | 40 | 468 |
| Rockfishes | 188 | 13 | 26 | 227 |
| Crab | 49 | 8 | 15 | 72 |
| | Percent of households purchasing frozen packaged fish | | | |
| Salmon | 22.6 | 18.3 | 27.2 | 22.8 |
| Halibut | 44.9 | 27.6 | 28.0 | 41.3 |
| Sole | 49.1 | 42.5 | 32.0 | 46.4 |
| Rockfishes | 23.6 | 14.9 | 20.8 | 22.5 |
| Crab | 6.1 | 9.2 | 12.0 | 7.1 |
| | Percent of households purchasing fish (other than canned) | | | |
| Salmon | 15.9 | 12.5 | 13.4 | 15.2 |
| Halibut | 31.7 | 18.8 | 13.8 | 27.6 |
| Sole | 34.6 | 28.9 | 15.7 | 30.9 |
| Rockfishes | 16.6 | 10.2 | 10.2 | 15.0 |
| Crab | 4.3 | 6.2 | 5.9 | 4.8 |
| | Percent of all households studied | | | |
| Salmon | 11.7 | 8.7 | 10.1 | 11.1 |
| Halibut | 23.2 | 13.1 | 10.4 | 20.2 |
| Sole | 25.3 | 20.2 | 11.9 | 22.7 |
| Rockfishes | 12.2 | 7.1 | 7.7 | 11.0 |
| Crab | 3.2 | 4.4 | 4.5 | 3.5 |

TABLE - 37.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Species | Households purchasing frozen packaged fish by area | | | | | |
|---|---|---|---|---|---|---|
| | I | II | III | IV | V | All areas |
| | Number purchasing each kind | | | | | |
| Salmon | 81 | 107 | 15 | 16 | 11 | 230 |
| Halibut | 111 | 227 | 31 | 32 | 16 | 417 |
| Sole | 163 | 224 | 27 | 37 | 17 | 468 |
| Rockfishes | 75 | 73 | 38 | 30 | 11 | 227 |
| Crab | 28 | 32 | 6 | - | 6 | 72 |
| | Percent of households purchasing frozen packaged fish | | | | | |
| Salmon | 21.8 | 22.7 | 28.8 | 23.2 | 25.0 | 22.8 |
| Halibut | 29.8 | 48.1 | 59.6 | 46.4 | 36.4 | 41.3 |
| Sole | 43.8 | 47.5 | 51.9 | 53.6 | 38.6 | 46.4 |
| Rockfishes | 20.2 | 15.5 | 73.1 | 43.5 | 25.0 | 22.5 |
| Crab | 7.5 | 6.8 | 11.5 | - | 13.6 | 7.1 |
| | Percent of households purchasing fish (other than canned) | | | | | |
| Salmon | 13.0 | 16.5 | 19.0 | 20.0 | 13.4 | 15.2 |
| Halibut | 17.8 | 35.0 | 39.2 | 40.0 | 19.5 | 27.6 |
| Sole | 26.2 | 34.5 | 34.2 | 46.3 | 20.7 | 30.9 |
| Rockfishes | 12.0 | 11.2 | 48.1 | 37.5 | 13.4 | 15.0 |
| Crab | 4.5 | 4.9 | 7.6 | - | 7.3 | 4.8 |
| | Percent of all households studied | | | | | |
| Salmon | 10.1 | 11.9 | 14.7 | 12.1 | 8.6 | 11.1 |
| Halibut | 13.8 | 25.3 | 30.4 | 24.2 | 12.5 | 20.2 |
| Sole | 20.3 | 24.9 | 26.5 | 28.0 | 13.3 | 22.7 |
| Rockfishes | 9.3 | 8.1 | 37.3 | 22.7 | 8.6 | 11.0 |
| Crab | 3.5 | 3.6 | 5.9 | - | 4.7 | 3.5 |

TABLE - 38.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED BY CITY SIZE, PACIFIC COAST STATES, 1956

| Species | Households purchasing frozen packaged fish by city size | | | | |
|---|---|---|---|---|---|
| | I Less than 2,500 | II 2,500 to 50,000 | III Over 50,000 (metro-suburban) | IV Over 50,000 (metropolitan) | Total |
| | Number purchasing each kind | | | | |
| Salmon | 11 | 27 | 77 | 115 | 230 |
| Halibut | 25 | 34 | 170 | 188 | 417 |
| Sole | 38 | 41 | 182 | 207 | 468 |
| Rockfishes | 26 | 31 | 86 | 84 | 227 |
| Crab | 2 | 8 | 20 | 42 | 72 |
| | Percent of households purchasing frozen packaged fish | | | | |
| Salmon | 14.1 | 27.0 | 20.8 | 24.9 | 22.8 |
| Halibut | 32.1 | 34.0 | 45.9 | 40.8 | 41.3 |
| Sole | 48.7 | 41.0 | 49.2 | 44.9 | 46.4 |
| Rockfishes | 33.3 | 31.0 | 23.2 | 18.2 | 22.5 |
| Crab | 2.6 | 8.0 | 5.4 | 9.1 | 7.1 |
| | Percent of households purchasing fish (other than canned) | | | | |
| Salmon | 8.7 | 16.4 | 15.5 | 15.9 | 15.2 |
| Halibut | 19.7 | 20.6 | 34.1 | 26.0 | 27.6 |
| Sole | 29.9 | 24.8 | 36.5 | 28.7 | 30.9 |
| Rockfishes | 20.5 | 18.8 | 17.3 | 11.6 | 15.0 |
| Crab | 1.6 | 4.8 | 4.0 | 5.8 | 4.8 |
| | Percent of all households studied | | | | |
| Salmon | 5.3 | 11.2 | 11.8 | 12.0 | 11.1 |
| Halibut | 12.1 | 14.1 | 26.0 | 19.6 | 20.2 |
| Sole | 18.4 | 17.0 | 27.8 | 21.5 | 22.7 |
| Rockfishes | 12.6 | 12.9 | 13.1 | 8.7 | 11.0 |
| Crab | 1.0 | 3.3 | 3.1 | 4.4 | 3.5 |

TABLE - 39.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Species | Households purchasing frozen packaged fish by income groups | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Under $2,000 | $2,000 to $3,999 | $4,000 to $5,999 | $6,000 to $7,999 | $8,000 to $9,999 | $10,000 or more | Refused or don't know | All groups |
| | Number purchasing each kind | | | | | | | |
| Salmon | 16 | 43 | 76 | 45 | 18 | 10 | 22 | 230 |
| Halibut | 26 | 74 | 156 | 68 | 31 | 25 | 37 | 417 |
| Sole | 42 | 79 | 151 | 79 | 42 | 31 | 44 | 468 |
| Rockfishes | 22 | 53 | 78 | 36 | 10 | 7 | 21 | 227 |
| Crab | 10 | 16 | 18 | 9 | 11 | 3 | 5 | 72 |
| | Percent of households purchasing frozen packaged fish | | | | | | | |
| Salmon | 19.0 | 21.7 | 22.6 | 26.6 | 27.3 | 16.4 | 23.2 | 22.8 |
| Halibut | 31.0 | 37.4 | 46.4 | 40.2 | 47.0 | 41.0 | 38.9 | 41.3 |
| Sole | 50.0 | 39.9 | 44.9 | 46.7 | 63.6 | 50.8 | 46.3 | 46.4 |
| Rockfishes | 26.2 | 26.8 | 23.2 | 21.3 | 15.2 | 11.5 | 22.1 | 22.5 |
| Crab | 11.9 | 8.1 | 5.4 | 5.3 | 16.7 | 4.9 | 5.3 | 7.1 |
| | Percent of households purchasing fish (other than canned) | | | | | | | |
| Salmon | 10.3 | 13.4 | 15.7 | 20.4 | 18.9 | 13.7 | 13.4 | 15.2 |
| Halibut | 16.8 | 23.1 | 32.2 | 30.8 | 32.6 | 34.2 | 22.6 | 27.6 |
| Sole | 27.1 | 24.6 | 31.2 | 35.7 | 44.2 | 42.5 | 26.8 | 30.9 |
| Rockfishes | 14.2 | 16.5 | 16.1 | 16.3 | 10.5 | 9.6 | 12.8 | 15.0 |
| Crab | 6.5 | 5.0 | 3.7 | 4.1 | 11.6 | 4.1 | 3.0 | 4.8 |
| | Percent of all households studied | | | | | | | |
| Salmon | 6.5 | 8.4 | 12.7 | 17.8 | 15.3 | 12.2 | 8.8 | 11.1 |
| Halibut | 10.5 | 14.4 | 26.0 | 26.9 | 26.3 | 30.5 | 14.8 | 20.2 |
| Sole | 16.9 | 15.4 | 25.2 | 31.2 | 35.6 | 37.8 | 17.6 | 22.7 |
| Rockfishes | 8.9 | 10.3 | 13.0 | 14.2 | 8.5 | 8.5 | 8.4 | 11.0 |
| Crab | 4.0 | 3.1 | 3.0 | 3.6 | 9.3 | 3.7 | 2.0 | 3.5 |

TABLE - 40.--RELATIONSHIP BETWEEN KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED AND LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

| Species | Households purchasing by length of residence | | | | |
|---|---|---|---|---|---|
| | 1 year or less | 2 to 5 years | 6 to 10 years | More than 10 years | All groups |
| | Number purchasing each kind | | | | |
| Salmon | 9 | 24 | 31 | 166 | 230 |
| Halibut | 18 | 48 | 63 | 288 | 417 |
| Sole | 17 | 47 | 53 | 351 | 468 |
| Rockfishes | 12 | 36 | 26 | 153 | 227 |
| Crab | - | 8 | 6 | 58 | 72 |
| | Percent of households purchasing frozen packaged fish | | | | |
| Salmon | 20.5 | 20.9 | 22.8 | 23.2 | 22.8 |
| Halibut | 40.9 | 41.7 | 46.3 | 40.3 | 41.3 |
| Sole | 38.6 | 40.9 | 39.0 | 49.2 | 46.4 |
| Rockfishes | 27.3 | 31.3 | 19.1 | 21.4 | 22.5 |
| Crab | - | 7.0 | 4.4 | 8.1 | 7.1 |
| | Percent of households purchasing fish (other than canned) | | | | |
| Salmon | 15.3 | 15.2 | 15.4 | 15.2 | 15.2 |
| Halibut | 30.5 | 30.4 | 31.3 | 26.3 | 27.6 |
| Sole | 28.8 | 29.7 | 26.4 | 32.1 | 30.9 |
| Rockfishes | 20.3 | 22.8 | 12.9 | 14.0 | 15.0 |
| Crab | - | 5.1 | 3.0 | 5.3 | 4.8 |
| | Percent of all households studied | | | | |
| Salmon | 9.7 | 10.7 | 11.9 | 11.2 | 11.1 |
| Halibut | 19.4 | 21.4 | 24.2 | 19.4 | 20.2 |
| Sole | 18.3 | 21.0 | 20.4 | 23.6 | 22.7 |
| Rockfishes | 12.9 | 16.1 | 10.0 | 10.3 | 11.0 |
| Crab | - | 3.6 | 2.3 | 3.9 | 3.5 |

TABLE - 41.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE, BY GEOGRAPHIC AREA, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing frozen packaged fish, by areas | | | | | |
|---|---|---|---|---|---|---|
| | I | II | III | IV | V | All areas |
| | | | Number | | | |
| Supermarket | 225 | 376 | 37 | 38 | 34 | 710 |
| Grocery store | 111 | 67 | 13 | 29 | 8 | 228 |
| Fish market | 11 | 4 | - | 1 | - | 16 |
| Meat market | 4 | 2 | 2 | - | 2 | 10 |
| Delicatessen | 1 | - | - | - | - | 1 |
| Other | 20 | 23 | - | 1 | - | 44 |
| Total | 372 | 472 | 52 | 69 | 44 | 1,009 |
| | | | Percent | | | |
| Supermarket | 60.5 | 79.7 | 71.2 | 55.1 | 77.3 | 70.3 |
| Grocery store | 29.8 | 14.2 | 25.0 | 42.0 | 18.2 | 22.6 |
| Fish market | 3.0 | 0.8 | - | 1.4 | - | 1.6 |
| Meat market | 1.0 | 0.4 | 3.8 | - | 4.5 | 1.0 |
| Delicatessen | 0.3 | - | - | - | - | 0.1 |
| Other | 5.4 | 4.9 | - | 1.5 | - | 4.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 42.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE AND CITY SIZE, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing | | | | |
|---|---|---|---|---|---|
| | City size | | | | |
| | I Less than 2,500 | II 2,500 to 50,000 | III Over 50,000 (metro-suburban) | IV Over 50,000 (metro-politan) | Total |
| | Number | | | | |
| Supermarket | 36 | 71 | 264 | 339 | 710 |
| Grocery store | 40 | 25 | 69 | 94 | 228 |
| Fish market | - | - | 8 | 8 | 16 |
| Meat market | 1 | 1 | 1 | 7 | 10 |
| Delicatessen | - | - | - | 1 | 1 |
| Other | 1 | 3 | 28 | 12 | 44 |
| All stores | 78 | 100 | 370 | 461 | 1,009 |
| | Percent | | | | |
| Supermarket | 46.1 | 71.0 | 71.4 | 73.5 | 70.3 |
| Grocery store | 51.3 | 25.0 | 18.6 | 20.4 | 22.6 |
| Fish market | - | - | 2.2 | 1.8 | 1.6 |
| Meat market | 1.3 | 1.0 | 0.3 | 1.5 | 1.0 |
| Delicatessen | - | - | - | 0.2 | 0.1 |
| Other | 1.3 | 3.0 | 7.5 | 2.6 | 4.4 |
| All stores | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 43.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE AND INCOME GROUPS, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing by income groups | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Under $2,000 | $2,000 to $3,999 | $4,000 to $5,999 | $6,000 to $7,999 | $8,000 to $9,999 | $10,000 or over | Refused and don't know | All groups |
| | | | | Number | | | | |
| Supermarket | 53 | 134 | 242 | 120 | 53 | 45 | 63 | 710 |
| Grocery store | 26 | 41 | 72 | 37 | 8 | 14 | 30 | 228 |
| Fish market | 1 | 2 | 6 | 4 | 1 | 2 | - | 16 |
| Meat market | 2 | 3 | 5 | - | - | - | - | 10 |
| Delicatessen | - | - | - | 1 | - | - | - | 1 |
| Other | 2 | 18 | 11 | 4 | 2 | 4 | 3 | 44 |
| All stores | 84 | 198 | 336 | 166 | 64 | 65 | 96 | 1,009 |
| | | | | Percent | | | | |
| Supermarket | 63.1 | 67.7 | 72.0 | 72.3 | 82.8 | 69.2 | 65.6 | 70.3 |
| Grocery store | 30.9 | 20.7 | 21.4 | 22.3 | 12.5 | 21.5 | 31.2 | 22.6 |
| Fish market | 1.2 | 1.0 | 1.8 | 2.4 | 1.6 | 3.1 | - | 1.6 |
| Meat market | 2.4 | 1.5 | 1.5 | - | - | - | - | 1.0 |
| Delicatessen | - | - | - | 0.6 | - | - | - | 0.1 |
| Other | 2.4 | 9.1 | 3.3 | 2.4 | 3.1 | 6.2 | 3.2 | 4.4 |
| All stores | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 44.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing frozen packaged fish | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | | | | Percent | | | |
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| Supermarket | 573 | 59 | 78 | 710 | 71.9 | 67.8 | 62.4 | 70.3 |
| Grocery store | 172 | 22 | 34 | 228 | 21.6 | 25.3 | 27.2 | 22.6 |
| Fish market | 9 | 1 | 6 | 16 | 1.1 | 1.1 | 4.8 | 1.6 |
| Meat market | 4 | 2 | 4 | 10 | 0.5 | 2.3 | 3.2 | 1.0 |
| Delicatessen | 1 | 0 | 0 | 1 | 0.1 | - | - | 0.1 |
| Other | 38 | 3 | 3 | 44 | 4.8 | 3.5 | 2.4 | 4.4 |
| All stores | 797 | 87 | 125 | 1,009 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 45.--KINDS OF PACKAGES PREFERRED FOR FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

| Type of package | Percent of frozen packaged fish users | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| Cardboard box with picture of product | 38.4 | 26.5 | 29.6 | 36.3 |
| Cardboard box with transparent wrapper | 19.2 | 31.0 | 24.0 | 20.8 |
| Transparent wrapper | 17.8 | 16.1 | 20.0 | 17.9 |
| No preference | 24.6 | 26.4 | 26.4 | 25.0 |

TABLE - 46.--KNOWLEDGE OF THE AVAILABILITY OF SELECTED KINDS OF FROZEN PACKAGED FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

| Species | Households answering | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | California | | | Oregon | | | Washington | | | Three states | | |
| | Yes | No | Don't know | Yes | No | Don't know | Yes | No | Don't know | Yes | No | Don't know |
| | Number | | | | | | | | | | | |
| Salmon | 171 | 2 | 7 | 15 | - | 1 | 26 | 2 | 6 | 212 | 4 | 14 |
| Halibut | 347 | 2 | 9 | 23 | - | 1 | 29 | 2 | 4 | 399 | 4 | 14 |
| Sole | 379 | 1 | 11 | 35 | 2 | - | 36 | 1 | 3 | 450 | 4 | 14 |
| Rockfish | 172 | 1 | 15 | 12 | 1 | - | 18 | 2 | 6 | 202 | 4 | 21 |
| Crab | 46 | 1 | 2 | 8 | - | - | 10 | 2 | 3 | 64 | 3 | 5 |
| | Percent of households purchasing frozen fish | | | | | | | | | | | |
| Salmon | 95.0 | 1.1 | 3.9 | 93.8 | - | 6.2 | 76.5 | 5.9 | 17.6 | 92.2 | 1.7 | 6.1 |
| Halibut | 96.9 | 0.6 | 2.5 | 95.8 | - | 4.2 | 82.9 | 5.7 | 11.4 | 95.7 | 1.0 | 3.3 |
| Sole | 96.9 | 0.3 | 2.8 | 94.6 | 5.4 | - | 90.0 | 2.5 | 7.5 | 96.2 | 0.9 | 2.9 |
| Rockfish | 91.5 | 0.5 | 8.0 | 92.3 | 7.7 | - | 69.2 | 7.7 | 23.1 | 89.0 | 1.8 | 9.2 |
| Crab | 93.9 | 2.0 | 4.1 | 100.0 | - | - | 66.7 | 13.3 | 20.0 | 88.9 | 4.2 | 6.9 |

TABLE - 47.--PREFERENCE FOR INDIVIDUAL SERVINGS OF FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

| State | Households answering | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | | | | Percent | | | |
| | Yes | No | No preference | Total | Yes | No | No preference | Total |
| California | 337 | 277 | 183 | 797 | 42.3 | 34.7 | 23.0 | 100.0 |
| Oregon | 36 | 32 | 19 | 87 | 41.4 | 36.8 | 21.8 | 100.0 |
| Washington | 53 | 51 | 21 | 125 | 42.4 | 40.8 | 16.8 | 100.0 |
| Three states | 426 | 360 | 223 | 1,009 | 42.2 | 35.7 | 22.1 | 100.0 |

TABLE - 48.--PREFERENCE FOR SIZE OF SERVING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

| Size of portion (ounces) | Household preference for portion size | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | | | | Percent | | | |
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| 2 | 5 | - | 3 | 8 | 1.5 | - | 5.7 | 1.9 |
| 3 | 6 | 3 | 5 | 14 | 1.8 | 8.3 | 9.4 | 3.3 |
| 4 | 76 | 12 | 14 | 102 | 22.5 | 33.3 | 26.4 | 23.9 |
| 10 | 1 | 1 | - | 2 | 0.3 | 2.8 | - | 0.5 |
| More than 10 | 8 | - | 1 | 9 | 2.4 | - | 1.9 | 2.1 |
| Don't know | 241 | 20 | 30 | 291 | 71.5 | 55.6 | 56.6 | 68.3 |
| All groups | 337 | 36 | 53 | 426 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 49.--PREFERENCE FOR SEPARATING INDIVIDUAL STEAKS OR FILLETS IN FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

| State | Household preference for separation | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | | | | Percent | | | |
| | Yes | No | No preference | Total | Yes | No | No preference | Total |
| California | 587 | 84 | 126 | 797 | 73.7 | 10.5 | 15.8 | 100.0 |
| Oregon | 67 | 4 | 16 | 87 | 77.0 | 4.6 | 18.4 | 100.0 |
| Washington | 95 | 14 | 16 | 125 | 76.0 | 11.2 | 12.8 | 100.0 |
| Total | 749 | 102 | 158 | 1,009 | 74.2 | 10.1 | 15.7 | 100.0 |

TABLE - 50.--REASONS FOR NOT PURCHASING MORE FROZEN PACKAGED FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

| Reasons | Percent of answers | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| Eat enough now | 34.7 | 23.0 | 14.9 | 31.2 |
| Don't like | 20.4 | 17.0 | 10.4 | 18.8 |
| Prefer fresh fish | 15.8 | 19.0 | 23.9 | 17.1 |
| No special reason | 10.0 | 13.0 | 20.2 | 11.6 |
| Catch own fresh fish | 2.3 | 6.0 | 5.2 | 3.0 |
| Not accustomed to eating | 1.6 | 2.0 | 1.5 | 1.6 |
| Quality reasons | 1.0 | 5.0 | 0.7 | 1.3 |
| Other | 14.2 | 15.0 | 23.2 | 15.4 |
| All answers | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 51.--PURCHASES OF SMOKED FISH, PACIFIC COAST STATES, 1956

| State | Households purchasing smoked fish | | | | |
|---|---|---|---|---|---|
| | Number | | | Percent | |
| | Yes | No | Total | All households studied | All households buying fish |
| California | 328 | 803 | 1,131 | 21.2 | 29.0 |
| Oregon | 60 | 68 | 128 | 32.8 | 46.9 |
| Washington | 147 | 107 | 254 | 43.6 | 57.9 |
| Total | 535 | 978 | 1,513 | 25.9 | 35.4 |

TABLE - 52.--PURCHASES OF SMOKED FISH PRODUCTS, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Geographic area | Number of households | | | Households buying smoked fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying smoked fish | Total studied | Those buying fish |
| I | 804 | 623 | 259 | 32.2 | 41.6 |
| II | 898 | 649 | 218 | 24.3 | 33.6 |
| III | 102 | 79 | 11 | 10.8 | 13.9 |
| IV | 132 | 80 | 13 | 9.8 | 16.2 |
| V | 128 | 82 | 34 | 26.6 | 41.5 |
| All areas | 2,064 | 1,513 | 535 | 25.9 | 35.4 |

TABLE - 53.--PURCHASE OF SMOKED FISH, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Income groups | Number of households | | | Households buying smoked fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying smoked fish | Total studied | Those buying fish |
| Under $2,000 | 248 | 155 | 44 | 17.7 | 28.3 |
| $2,000 to $3,999 | 514 | 321 | 103 | 20.0 | 32.1 |
| $4,000 to $5,999 | 599 | 484 | 180 | 30.1 | 37.2 |
| $6,000 to $7,999 | 253 | 221 | 86 | 34.0 | 38.9 |
| $8,000 to $9,999 | 118 | 95 | 44 | 37.3 | 46.3 |
| $10,000 or more | 82 | 73 | 34 | 41.5 | 46.6 |
| Refused | 64 | 38 | 9 | 14.1 | 23.7 |
| Don't know | 186 | 126 | 35 | 18.8 | 27.8 |
| All groups | 2,064 | 1,513 | 535 | 25.9 | 35.4 |

TABLE - 54.--PURCHASE OF SMOKED FISH, BY LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

| Years of residence | Number of households | | | Households buying smoked fish as percent of | |
|---|---|---|---|---|---|
| | Total studied | Total buying fish | Buying smoked fish | Total studied | Those buying fish |
| 0 to 1 | 93 | 59 | 15 | 16.1 | 25.4 |
| 2 to 5 | 224 | 158 | 54 | 24.1 | 34.2 |
| 6 to 10 | 260 | 201 | 69 | 26.5 | 34.3 |
| Over 10 | 1,487 | 1,095 | 397 | 26.7 | 36.3 |
| All groups | 2,064 | 1,513 | 535 | 25.9 | 35.4 |

TABLE - 55.--KINDS OF SMOKED FISH PURCHASED, PACIFIC COAST STATES, 1956

| Kinds of smoked fish | Households purchasing smoked fish | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| | Number of households purchasing each kind | | | |
| Salmon | 205 | 57 | 141 | 403 |
| Cod | 93 | 4 | 11 | 108 |
| Herring | 72 | 6 | 6 | 84 |
| Finnan haddie | 9 | 2 | 3 | 14 |
| Swordfish | 8 | - | - | 8 |
| Other | 100 | 4 | 14 | 118 |
| All households | 328 | 60 | 147 | 535 |
| | Percent of households purchasing smoked fish | | | |
| Salmon | 62.5 | 95.0 | 95.9 | 75.3 |
| Cod | 28.4 | 6.7 | 7.5 | 20.2 |
| Herring | 22.0 | 10.0 | 4.1 | 15.7 |
| Finnan haddie | 2.7 | 3.3 | 2.0 | 2.6 |
| Swordfish | 2.4 | - | - | 1.5 |
| Other | 30.5 | 6.7 | 9.5 | 22.1 |
| | Percent of households purchasing fish (other than canned) | | | |
| Salmon | 13.3 | 31.1 | 41.8 | 19.5 |
| Cod | 6.0 | 2.2 | 3.3 | 5.2 |
| Herring | 4.7 | 3.3 | 1.8 | 4.1 |
| Finnan haddie | 0.6 | 1.1 | 0.9 | 0.7 |
| Swordfish | 0.5 | - | - | 0.4 |
| Other | 6.5 | 2.2 | 4.2 | 5.7 |

TABLE - 56.--KINDS OF SMOKED FISH PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Kinds of smoked fish | Percent of all smoked fish buyers purchasing each kind | | | | | |
|---|---|---|---|---|---|---|
| | Area I | Area II | Area III | Area IV | Area V | All areas |
| Salmon | 88.0 | 57.8 | 81.8 | 61.5 | 94.1 | 75.3 |
| Cod | 17.0 | 25.7 | 18.2 | 23.1 | 8.8 | 20.2 |
| Herring | 10.0 | 22.9 | 18.2 | 30.8 | 5.9 | 15.7 |
| Finnan haddie | 2.3 | 3.2 | - | - | 2.9 | 2.6 |
| Swordfish | 0.4 | 2.3 | - | 15.4 | - | 1.5 |
| Other | 8.9 | 36.7 | 54.5 | 38.5 | 11.8 | 22.1 |

TABLE - 57.--KINDS OF SMOKED FISH PURCHASED, BY CITY SIZE, PACIFIC COAST STATES, 1956

| Kinds of fish | Households purchasing by city size | | | | |
|---|---|---|---|---|---|
| | I Under 2,500 | II 2,500 to 50,000 | III Over 50,000 (metro-suburban) | IV Over 50,000 (metro-politan) | All city sizes |
| | Number purchasing | | | | |
| Salmon | 40 | 39 | 131 | 193 | 403 |
| Cod | 3 | 3 | 38 | 64 | 108 |
| Herring | 2 | 3 | 36 | 43 | 84 |
| Finnan haddie | - | 1 | 3 | 10 | 14 |
| Swordfish | - | 1 | 1 | 6 | 8 |
| Other | 5 | 7 | 53 | 53 | 118 |
| | Percent of households purchasing smoked fish | | | | |
| Salmon | 95.2 | 86.7 | 70.4 | 73.7 | 75.3 |
| Cod | 7.1 | 6.7 | 20.4 | 24.4 | 20.2 |
| Herring | 4.8 | 6.7 | 19.4 | 16.4 | 15.7 |
| Finnan haddie | - | 2.2 | 1.6 | 3.8 | 2.6 |
| Swordfish | - | 2.2 | 0.5 | 2.3 | 1.5 |
| Other | 11.9 | 15.6 | 28.5 | 20.2 | 22.1 |

TABLE - 58.--TYPE OF STORE WHERE SMOKED FISH WERE PURCHASED, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| | Number purchasing | | | |
| Supermarket | 153 | 27 | 57 | 237 |
| Fish market | 75 | 18 | 25 | 118 |
| Grocery store 1/ | 32 | 3 | 46 | 81 |
| Delicatessen | 42 | - | 1 | 43 |
| Meat market | 4 | 3 | 9 | 16 |
| Other | 22 | 9 | 9 | 40 |
| All households | 328 | 60 | 147 | 535 |
| | Percent of households purchasing smoked fish | | | |
| Supermarket | 46.6 | 45.0 | 38.8 | 44.3 |
| Fish market | 22.9 | 30.0 | 17.0 | 22.1 |
| Grocery store 1/ | 9.8 | 5.0 | 31.3 | 15.1 |
| Delicatessen | 12.8 | - | 0.7 | 8.0 |
| Meat market | 1.2 | 5.0 | 6.1 | 3.0 |
| Other | 6.7 | 15.0 | 6.1 | 7.5 |
| All stores | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Includes neighborhood grocery store.

TABLE - 59.--TYPE OF STORE WHERE SMOKED FISH WERE PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing | | | | | |
|---|---|---|---|---|---|---|
| | I | II | III | IV | V | All areas |
| | Number purchasing | | | | | |
| Supermarket | 108 | 103 | 3 | 7 | 16 | 237 |
| Fish market | 54 | 55 | 4 | 4 | 1 | 118 |
| Grocery store | 51 | 17 | 2 | - | 11 | 81 |
| Delicatessen | 16 | 26 | - | 1 | - | 43 |
| Meat market | 11 | 1 | 1 | 1 | 2 | 16 |
| Other | 19 | 16 | 1 | - | 4 | 40 |
| All stores | 259 | 218 | 11 | 13 | 34 | 535 |
| | Percent of households purchasing smoked fish | | | | | |
| Supermarket | 41.7 | 47.2 | 27.3 | 53.8 | 47.1 | 44.3 |
| Fish market | 20.9 | 25.2 | 36.3 | 30.8 | 2.9 | 22.1 |
| Grocery store | 19.7 | 7.8 | 18.2 | - | 32.4 | 15.1 |
| Delicatessen | 6.2 | 11.9 | - | 7.7 | - | 8.0 |
| Meat market | 4.2 | 0.5 | 9.1 | 7.7 | 5.9 | 3.0 |
| Other | 7.3 | 7.4 | 9.1 | - | 11.7 | 7.5 |
| All stores | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 60.--TYPE OF STORE WHERE SMOKED FISH WERE PURCHASED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Type of store | Households purchasing | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Under $2,000 | $2,000 to $3,999 | $4,000 to $5,999 | $6,000 to $7,999 | $8,000 to $9,999 | $10,000 or more | Refused | Don't know |
| | Number purchasing | | | | | | | |
| Fish market | 3 | 31 | 45 | 13 | 7 | 8 | - | 11 |
| Meat market | 1 | 3 | 7 | 2 | 1 | 2 | - | - |
| Supermarket | 23 | 41 | 83 | 40 | 17 | 12 | 7 | 14 |
| Grocery store | 10 | 16 | 23 | 15 | 4 | 6 | 1 | 6 |
| Delicatessen | 1 | 4 | 13 | 11 | 10 | 1 | - | 2 |
| Other 1/ | 6 | 8 | 9 | 5 | 5 | 5 | 1 | 2 |
| All stores | 44 | 103 | 180 | 86 | 44 | 34 | 9 | 35 |
| | Percent | | | | | | | |
| Fish market | 6.8 | 30.1 | 25.0 | 15.1 | 15.9 | 23.5 | - | 31.4 |
| Meat market | 2.3 | 2.9 | 3.9 | 2.3 | 2.3 | 5.9 | - | - |
| Supermarket | 52.3 | 39.8 | 46.1 | 46.5 | 38.6 | 35.3 | 77.8 | 40.0 |
| Grocery store | 22.7 | 15.5 | 12.8 | 17.5 | 9.1 | 17.7 | 11.1 | 17.2 |
| Delicatessen | 2.3 | 3.9 | 7.2 | 12.8 | 22.7 | 2.9 | - | 5.7 |
| Other 1/ | 13.6 | 7.8 | 5.0 | 5.8 | 11.4 | 14.7 | 11.1 | 5.7 |
| All stores | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Includes some households marking 2 types of stores.

TABLE - 61.--CONSUMER KNOWLEDGE OF THE AVAILABILITY OF SMOKED FISH, PACIFIC COAST STATES, 1956

| State | Households answering | | | | | |
|---|---|---|---|---|---|---|
| | Number | | | Percent | | |
| | Available | Not available | Don't know | Available | Not available | Don't know |
| California | 204 | 99 | 25 | 62.2 | 30.2 | 7.6 |
| Oregon | 40 | 14 | 6 | 66.7 | 23.3 | 10.0 |
| Washington | 107 | 30 | 10 | 72.8 | 20.4 | 6.8 |
| Three states | 351 | 143 | 41 | 65.6 | 26.7 | 7.7 |

TABLE - 62.--REASONS FOR NOT PURCHASING SMOKED AND KIPPERED FISH, 831 NON-USERS OF SMOKED FISH PRODUCTS, PACIFIC COAST STATES, 1956

| Reasons | Households answering | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| | Number of answers | | | |
| Don't like | 404 | 34 | 38 | 476 |
| Not accustomed to using | 145 | 11 | 27 | 183 |
| Not available | 40 | - | 2 | 42 |
| Price too high | 26 | 3 | 6 | 35 |
| Dietary reasons | 17 | - | 3 | 20 |
| Smoke own | 10 | 4 | 11 | 25 |
| Quality | 4 | 1 | 1 | 6 |
| Other | 56 | 4 | 6 | 66 |
| | Percent of answers | | | |
| Don't like | 57.5 | 59.6 | 40.4 | 55.8 |
| Not accustomed to using | 20.7 | 19.3 | 28.7 | 21.5 |
| Not available | 5.7 | - | 2.1 | 4.9 |
| Price too high | 3.7 | 5.3 | 6.4 | 4.1 |
| Dietary reasons | 2.4 | - | 3.2 | 2.3 |
| Smoke own | 1.4 | 7.0 | 11.7 | 2.9 |
| Quality | 0.6 | 1.8 | 1.1 | 0.8 |
| Other | 8.0 | 7.0 | 6.4 | 7.7 |

TABLE - 63.--CONSUMER PREFERENCE FOR FRESH VS. FROZEN PACKAGED FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

| Species | Percent of all purchasers | | | |
|---|---|---|---|---|
| | Fresh | Frozen | No preference | Total |
| | | California | | |
| Salmon | 75.4 | 12.1 | 12.5 | 100.0 |
| Halibut | 74.4 | 13.8 | 11.8 | 100.0 |
| Sole | 73.2 | 14.0 | 12.8 | 100.0 |
| Rockfishes | 68.8 | 12.5 | 18.7 | 100.0 |
| Crab | 69.9 | 11.1 | 19.0 | 100.0 |
| | | Oregon | | |
| Salmon | 86.7 | 6.3 | 7.0 | 100.0 |
| Halibut | 86.7 | 6.3 | 7.0 | 100.0 |
| Sole | 84.4 | 8.6 | 7.0 | 100.0 |
| Rockfishes | 82.0 | 9.4 | 8.6 | 100.0 |
| Crab | 86.7 | 5.5 | 7.8 | 100.0 |
| | | Washington | | |
| Salmon | 87.8 | 7.5 | 4.7 | 100.0 |
| Halibut | 87.4 | 6.7 | 5.9 | 100.0 |
| Sole | 85.4 | 7.9 | 6.7 | 100.0 |
| Rockfishes | 85.4 | 8.7 | 5.9 | 100.0 |
| Crab | 87.4 | 5.1 | 7.5 | 100.0 |

TABLE - 64.--METHODS OF PREPARING SELECTED KINDS OF FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

| Methods of preparation | Households reporting | | | | |
|---|---|---|---|---|---|
| | Salmon | Halibut | Sole | Rockfishes | Crab |
| | | | Number | | |
| Fry | 538 | 642 | 709 | 414 | - |
| Broil | 202 | 168 | 82 | 48 | 10 |
| Bake | 173 | 141 | 84 | 52 | 13 |
| Boil | 15 | 20 | 7 | - | 177 |
| Barbecue | 3 | 10 | 6 | 9 | 1 |
| Salads | 4 | - | 2 | 1 | 302 |
| Appetizers | 4 | - | 1 | 1 | 35 |
| Total | 939 | 981 | 891 | 525 | 538 |
| | | | Percent | | |
| Fry | 57.3 | 65.5 | 79.6 | 78.9 | - |
| Broil | 21.5 | 17.1 | 9.2 | 9.1 | 1.9 |
| Bake | 18.5 | 14.4 | 9.4 | 9.9 | 2.4 |
| Boil | 1.6 | 2.0 | 0.8 | - | 32.9 |
| Barbecue | 0.3 | 1.0 | 0.7 | 1.7 | 0.2 |
| Salads | 0.4 | - | 0.2 | 0.2 | 56.1 |
| Appetizers | 0.4 | - | 0.1 | 0.2 | 6.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 65.--PURCHASE OF PRECOOKED STEAKS AND FILLETS, PACIFIC COAST STATES, 1956

| State | Number purchasing | | | Percent purchasing | | |
|---|---|---|---|---|---|---|
| | Yes | No | Total | Yes | No | Total |
| California | 114 | 1,017 | 1,131 | 10.0 | 90.0 | 100.0 |
| Oregon | - | 128 | 128 | - | 100.0 | 100.0 |
| Washington | 4 | 250 | 254 | 1.6 | 98.4 | 100.0 |
| Total | 118 | 1,395 | 1,513 | 7.8 | 92.2 | 100.0 |

TABLE - 66.--PREFERENCE FOR EATING FISH MEALS AT HOME VS. IN A RESTAURANT, PACIFIC COAST STATES, 1956

| State | Eating place preferred | | | |
|---|---|---|---|---|
| | Home | Restaurant | Don't know | Total |
| | Percent | | | |
| California | 78.4 | 18.6 | 3.0 | 100.0 |
| Oregon | 83.6 | 14.1 | 2.3 | 100.0 |
| Washington | 85.0 | 12.2 | 2.8 | 100.0 |
| Total | 80.0 | 17.1 | 2.9 | 100.0 |

TABLE - 67.--PREFERENCE FOR EATING FISH MEALS AT HOME VS. IN A RESTAURANT, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Income groups | Total number | Eating place preference | | | |
|---|---|---|---|---|---|
| | | Home | Restaurant | Don't know | Total |
| | | Percent | | | |
| Under $2,000 | 154 | 88.1 | 9.6 | 2.3 | 100.0 |
| $2,000 to $3,999 | 321 | 84.4 | 13.1 | 2.5 | 100.0 |
| $4,000 to $5,999 | 484 | 80.4 | 16.1 | 3.5 | 100.0 |
| $6,000 to $7,999 | 221 | 80.1 | 18.1 | 1.8 | 100.0 |
| $8,000 to $9,999 | 95 | 60.2 | 35.6 | 4.2 | 100.0 |
| More than $10,000 | 73 | 74.0 | 23.3 | 2.7 | 100.0 |
| Refused | 38 | 73.6 | 21.1 | 5.3 | 100.0 |
| Don't know | 127 | 77.2 | 19.7 | 3.1 | 100.0 |
| Total | 1,513 | 80.0 | 17.1 | 2.9 | 100.0 |

TABLE - 68.--REASONS FOR PREFERRING TO EAT FISH MEALS IN RESTAURANTS, PACIFIC COAST STATES, 1956

| Reasons | Percent of reasons given | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Don't like to fix fish | 23.7 | 5.6 | 21.2 | 22.3 |
| Don't like smell in house | 16.1 | 27.8 | 21.2 | 17.4 |
| Like way restaurant prepares | 11.0 | 22.2 | 3.0 | 10.8 |
| Like to try unusual dishes | 17.0 | 5.5 | 12.1 | 15.7 |
| Not all of family like fish | 10.2 | 16.7 | 9.1 | 10.5 |
| Don't know how to prepare | 5.1 | 16.7 | 6.1 | 5.9 |
| Other | 16.9 | 5.5 | 27.3 | 17.4 |
| All reasons | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Based on 259 households.

TABLE - 69.--REASONS FOR PREFERRING TO EAT FISH MEALS IN RESTAURANTS BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Reasons | Percent of reasons given by income | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Under $2,000 | $2,000 to $3,999 | $4,000 to $5,999 | $6,000 to $7,999 | $8,000 to $9,999 | $10,000 or more | Re-fused | Other |
| Don't like to prepare fish | 33.3 | 31.9 | 22.4 | 19.6 | 18.9 | 10.3 | 25.0 | 21.7 |
| Don't like smell in house | 16.7 | 14.9 | 16.5 | 17.4 | 10.8 | 17.2 | 25.0 | 34.8 |
| Like way restaurant prepares fish | - | 14.9 | 8.2 | 6.5 | 27.0 | 6.9 | 12.5 | 4.4 |
| Like to try unusual fish dishes | 8.3 | 8.5 | 21.2 | 10.9 | 29.8 | 10.4 | - | 13.0 |
| Not all members like fish | - | 10.6 | 9.4 | 8.7 | 13.5 | 10.4 | 12.5 | 17.4 |
| Don't know how to prepare | 16.7 | 4.3 | 9.4 | 8.7 | - | - | 12.5 | - |
| Other | 25.0 | 14.9 | 12.9 | 28.2 | - | 44.8 | 12.5 | 8.7 |
| All reasons | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of respondents | 12 | 47 | 85 | 46 | 37 | 29 | 8 | 23 |

Note: Based on 259 households. Some gave more than one answer.

TABLE - 70.--REASONS FOR PREFERRING TO EAT FISH MEALS IN A RESTAURANT, ACCORDING TO YEARS OF SCHOOLING COMPLETED, PACIFIC COAST STATES, 1956

| Reasons | Percent of reasons by educational level | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Less than 4 years | 4-6 | 7-8 | 9-10 | 11-12 | 13-14 | 15-16 | Over 16 |
| Don't like to prepare fish | - | 10.0 | 17.4 | 13.8 | 31.0 | 19.4 | 21.4 | 25.0 |
| Don't like smell in house | - | 2.5 | 8.7 | 17.2 | 15.0 | 41.8 | 23.8 | 50.0 |
| Like way restaurant prepares | - | - | 8.7 | 20.8 | 15.9 | 3.2 | 9.5 | - |
| Like to try unusual dishes | - | - | - | 17.2 | 20.4 | 6.5 | 35.8 | - |
| All members of family don't like | - | - | 4.4 | 17.2 | 14.2 | 9.7 | 9.5 | 25.0 |
| Don't know how to prepare | - | - | 13.0 | 13.8 | 3.5 | 19.4 | - | - |
| Other | 100.0 | 87.5 | 47.8 | - | - | - | - | - |
| All reasons | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Based on 259 households.

TABLE - 71.--TIMES PER MONTH THAT FISH WAS SERVED, PACIFIC COAST STATES, 1956

| State | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| California | 417 | 307 | 295 | 525 | 1,544 |
| Oregon | 56 | 47 | 30 | 50 | 183 |
| Washington | 86 | 65 | 55 | 131 | 337 |
| Three states | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| California | 27.0 | 19.9 | 19.1 | 34.0 | 100.0 |
| Oregon | 30.6 | 25.7 | 16.4 | 27.3 | 100.0 |
| Washington | 25.5 | 19.3 | 16.3 | 38.9 | 100.0 |
| Three states | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

TABLE - 72.--TIMES PER MONTH THAT FISH WAS SERVED, BY YEARS OF SCHOOLING COMPLETED BY HOUSEWIFE, PACIFIC COAST STATES, 1956

| Years of schooling | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| Less than 4 | 11 | 7 | 2 | 12 | 32 |
| 4 - 6 | 35 | 7 | 15 | 22 | 79 |
| 7 - 8 | 135 | 62 | 44 | 89 | 330 |
| 9 - 10 | 75 | 63 | 45 | 84 | 267 |
| 11 - 12 | 195 | 173 | 159 | 290 | 817 |
| 13 - 14 | 59 | 53 | 61 | 95 | 268 |
| 15 - 16 | 25 | 37 | 41 | 93 | 196 |
| More than 16 | 4 | 6 | 7 | 13 | 30 |
| Refused and don't know | 20 | 11 | 6 | 8 | 45 |
| All groups | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| Less than 4 | 34.4 | 21.9 | 6.2 | 37.5 | 100.0 |
| 4 - 6 | 44.3 | 8.9 | 19.0 | 27.8 | 100.0 |
| 7 - 8 | 40.9 | 18.8 | 13.3 | 27.0 | 100.0 |
| 9 - 10 | 28.1 | 23.6 | 16.8 | 31.5 | 100.0 |
| 11 - 12 | 23.8 | 21.2 | 19.5 | 35.5 | 100.0 |
| 13 - 14 | 22.0 | 19.8 | 22.8 | 35.4 | 100.0 |
| 15 - 16 | 12.8 | 18.9 | 20.9 | 47.4 | 100.0 |
| More than 16 | 13.3 | 20.0 | 23.3 | 43.4 | 100.0 |
| Refused and don't know | 44.5 | 24.4 | 13.3 | 17.8 | 100.0 |
| All groups | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

TABLE - 73.--TIMES PER MONTH THAT FISH WAS SERVED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

| Income | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| Under $2,000 | 96 | 49 | 35 | 68 | 248 |
| $2,000 to 3,999 | 195 | 92 | 71 | 156 | 514 |
| $4,000 to 5,999 | 117 | 113 | 131 | 238 | 599 |
| $6,000 to 7,999 | 32 | 63 | 59 | 99 | 253 |
| $8,000 to 10,000 | 23 | 24 | 30 | 41 | 118 |
| More than $10,000 | 9 | 23 | 19 | 31 | 82 |
| Refused | 26 | 11 | 9 | 18 | 64 |
| Don't know | 61 | 44 | 26 | 55 | 186 |
| All groups | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| Under $2,000 | 38.7 | 19.8 | 14.1 | 27.4 | 100.0 |
| $2,000 to 3,999 | 37.9 | 17.9 | 13.8 | 30.4 | 100.0 |
| $4,000 to 5,999 | 19.5 | 18.9 | 21.9 | 39.7 | 100.0 |
| $6,000 to 7,999 | 12.7 | 24.9 | 23.3 | 39.1 | 100.0 |
| $8,000 to 10,000 | 19.5 | 20.3 | 25.4 | 34.8 | 100.0 |
| More than $10,000 | 11.0 | 28.0 | 23.2 | 37.8 | 100.0 |
| Refused | 40.6 | 17.2 | 14.1 | 28.1 | 100.0 |
| Don't know | 32.8 | 23.6 | 14.0 | 29.6 | 100.0 |
| All groups | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

TABLE - 74.--TIMES PER MONTH THAT FISH WAS SERVED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

| Geographic area | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| I | 188 | 164 | 136 | 316 | 804 |
| II | 249 | 180 | 174 | 295 | 898 |
| III | 24 | 18 | 25 | 35 | 102 |
| IV | 52 | 31 | 22 | 27 | 132 |
| V | 46 | 26 | 23 | 33 | 128 |
| All areas | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| I | 23.4 | 20.4 | 16.9 | 39.3 | 100.0 |
| II | 27.7 | 20.0 | 19.4 | 32.9 | 100.0 |
| III | 23.5 | 17.7 | 24.5 | 34.3 | 100.0 |
| IV | 39.4 | 23.5 | 16.7 | 20.4 | 100.0 |
| V | 35.9 | 20.3 | 18.0 | 25.8 | 100.0 |
| All areas | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

TABLE - 75.--TIMES PER MONTH THAT FISH WAS SERVED, BY LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

| Time in State | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| 1 year or less | 34 | 15 | 16 | 28 | 93 |
| 2 - 5 | 66 | 39 | 43 | 76 | 224 |
| 6 - 10 | 59 | 62 | 55 | 84 | 260 |
| More than 10 | 400 | 303 | 266 | 518 | 1,487 |
| All groups | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| 1 year or less | 36.6 | 16.1 | 17.2 | 30.1 | 100.0 |
| 2 - 5 | 29.5 | 17.4 | 19.2 | 33.9 | 100.0 |
| 6 - 10 | 22.7 | 23.8 | 21.2 | 32.3 | 100.0 |
| More than 10 | 26.9 | 20.4 | 17.9 | 34.8 | 100.0 |
| All groups | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

TABLE - 76.--TIMES PER MONTH THAT FISH WAS SERVED, BY RELIGIOUS GROUPS, PACIFIC COAST STATES, 1956

| Religious group | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| Protestant | 379 | 315 | 290 | 386 | 1,370 |
| Catholic | 121 | 55 | 57 | 252 | 485 |
| Jewish | 8 | 17 | 12 | 23 | 60 |
| No preference | 37 | 23 | 13 | 22 | 95 |
| Other | 14 | 9 | 8 | 23 | 54 |
| All groups | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| Protestant | 27.6 | 23.0 | 21.2 | 28.2 | 100.0 |
| Catholic | 24.9 | 11.3 | 11.8 | 52.0 | 100.0 |
| Jewish | 13.3 | 28.3 | 20.0 | 38.4 | 100.0 |
| No preference | 38.9 | 24.2 | 13.7 | 23.2 | 100.0 |
| Other | 25.9 | 16.7 | 14.8 | 42.6 | 100.0 |
| All groups | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

TABLE - 77.--TIMES PER MONTH THAT FISH WAS SERVED,
BY PLACE OF PRIOR RESIDENCE,
PACIFIC COAST STATES, 1956

| Prior residence | Times per month | | | | |
|---|---|---|---|---|---|
| | None | 1 or less | 2 to 3 | 4 or more | Total |
| | | | Number | | |
| Native | 156 | 141 | 126 | 245 | 668 |
| North Atlantic | 36 | 42 | 39 | 81 | 198 |
| South Atlantic | 12 | 4 | 3 | 20 | 39 |
| North Central | 158 | 117 | 100 | 166 | 541 |
| South Central | 86 | 56 | 39 | 62 | 243 |
| Mountain | 72 | 41 | 52 | 58 | 223 |
| Canada | 6 | 4 | 8 | 12 | 30 |
| Mexico | 10 | 2 | 1 | 5 | 18 |
| Europe | 14 | 5 | 6 | 29 | 54 |
| Other | 9 | 7 | 6 | 28 | 50 |
| All groups | 559 | 419 | 380 | 706 | 2,064 |
| | | | Percent | | |
| Native | 23.4 | 21.1 | 18.9 | 36.6 | 100.0 |
| North Atlantic | 18.2 | 21.2 | 19.7 | 40.9 | 100.0 |
| South Atlantic | 30.8 | 10.2 | 7.7 | 51.3 | 100.0 |
| North Central | 29.2 | 21.6 | 18.5 | 30.7 | 100.0 |
| South Central | 35.4 | 23.0 | 16.0 | 25.6 | 100.0 |
| Mountain | 32.3 | 18.4 | 23.3 | 26.0 | 100.0 |
| Canada | 20.0 | 13.3 | 26.7 | 40.0 | 100.0 |
| Mexico | 55.5 | 11.1 | 5.6 | 27.8 | 100.0 |
| Europe | 25.9 | 9.3 | 11.1 | 53.7 | 100.0 |
| Other | 18.0 | 14.0 | 12.0 | 56.0 | 100.0 |
| All groups | 27.1 | 20.3 | 18.4 | 34.2 | 100.0 |

Tables Nos. 78 - 131

on

Retail Distribution

Items in the tables showing a reported number less than 14 and percentages based on a reported number less than 14 do not give reliable indications for the group to which they refer. They are shown for reference purposes only and should not be used as reliable indications for the group because of the small sample response.

## Fresh Fish and Shellfish

TABLE - 78.--STORES SELLING FRESH FISH, PACIFIC COAST STATES, 1955

| Type of store | Interviewed stores selling fresh fish | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| | Number | | | |
| Fish market | 7 | - | 5 | 12 |
| Meat market | 47 | 4 | 20 | 71 |
| Supermarket | 101 | 32 | 16 | 149 |
| Grocery store | 71 | 39 | 46 | 156 |
| Neighborhood grocery | 64 | 8 | 30 | 102 |
| All stores | 290 | 83 | 117 | 490 |
| | Percent of stores interviewed | | | |
| Fish market | 100.0 | - | 100.0 | 100.0 |
| Meat market | 67.1 | 100.0 | 100.0 | 75.5 |
| Supermarket | 66.9 | 100.0 | 100.0 | 74.9 |
| Grocery store | 43.6 | 78.0 | 69.7 | 55.9 |
| Neighborhood grocery | 26.4 | 50.0 | 55.6 | 32.7 |
| All stores | 45.5 | 78.3 | 72.7 | 54.2 |

TABLE - 79.--STORES SELLING FRESH FISH, BY GEOGRAPHIC AREAS PACIFIC COAST STATES, 1955

| Type of store | Stores selling fresh fish by areas | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number interviewed | | | | Percent of stores interviewed | | | |
| | Area I | Area II | Area III | All areas | Area I | Area II | Area III | All areas |
| Fish market | 5 | 7 | - | 12 | 100.0 | 100.0 | 100.0 | 100.0 |
| Meat market | 58 | 13 | - | 71 | 93.5 | 46.4 | - | 75.5 |
| Supermarket | 79 | 41 | 29 | 149 | 90.8 | 62.1 | 63.0 | 74.9 |
| Grocery store | 109 | 20 | 27 | 156 | 70.3 | 28.2 | 50.9 | 55.9 |
| Neighborhood grocery | 66 | 24 | 12 | 102 | 42.8 | 21.8 | 25.0 | 32.7 |
| General store | - | - | - | - | - | - | - | - |
| All stores | 317 | 105 | 68 | 490 | 67.9 | 37.2 | 43.9 | 54.2 |

TABLE - 80.--STORES INTERVIEWED NOT SELLING FRESH FISH THAT SOLD FRESH MEAT, PACIFIC COAST STATES, 1955

| Type of store | Number of stores not selling fish that sold fresh meat | | | | Percent of stores not selling fish that sold fresh meat | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| Fish market | - | - | - | - | - | - | - | - |
| Meat market | 23 | - | - | 23 | 100.0 | - | - | 100.0 |
| Supermarket | 49 | - | - | 49 | 98.0 | - | - | 98.0 |
| Grocery store | 73 | 8 | 16 | 97 | 79.3 | 72.7 | 80.0 | 79.0 |
| Neighborhood grocery | 148 | 8 | 16 | 172 | 83.1 | 100.0 | 66.7 | 82.0 |
| General store | 4 | 4 | - | 8 | 100.0 | 100.0 | - | 100.0 |
| All stores | 297 | 20 | 32 | 349 | 85.6 | 86.9 | 72.7 | 84.3 |

TABLE - 81--KINDS OF FRESH FISH SOLD BY RETAIL STORES, PACIFIC COAST STATES, 1955

| Type of store | Stores handling | | | | |
|---|---|---|---|---|---|
| | Salmon | Halibut | Sole | Rockfishes | Crab |
| | Number of stores | | | | |
| Fish market | 12 | 12 | 12 | 8 | 12 |
| Meat market | 66 | 62 | 67 | 61 | 40 |
| Supermarket | 134 | 131 | 117 | 96 | 86 |
| Grocery store | 145 | 122 | 120 | 108 | 85 |
| Neighborhood grocery | 94 | 85 | 66 | 73 | 42 |
| All stores | 451 | 412 | 382 | 346 | 265 |
| | Percent of stores | | | | |
| Fish market | 100.0 | 100.0 | 100.0 | 66.7 | 100.0 |
| Meat market | 93.0 | 87.3 | 94.4 | 85.9 | 56.3 |
| Supermarket | 89.9 | 87.9 | 78.5 | 64.4 | 57.7 |
| Grocery store | 92.9 | 78.2 | 76.9 | 69.2 | 54.5 |
| Neighborhood grocery | 92.2 | 83.3 | 64.7 | 71.6 | 41.2 |
| All stores | 92.0 | 84.1 | 77.9 | 70.6 | 54.1 |

TABLE - 82.--RELATIVE IMPORTANCE OF DOLLAR SALES OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Percent of store sales | | | | | | |
|---|---|---|---|---|---|---|---|
| | Salmon | Halibut 1/ | Sole | Rockfishes | Crab | Other | Total |
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | 27.8 | 15.1 | 29.7 | 14.7 | 4.7 | 8.0 | 100.0 |
| Supermarket | 27.3 | 24.5 | 20.0 | 8.5 | 13.8 | 5.9 | 100.0 |
| Grocery store | 27.6 | 11.1 | 26.6 | 15.1 | 2.9 | 16.7 | 100.0 |
| Neighborhood grocery | 36.3 | 10.8 | 29.7 | 12.5 | .5 | 10.2 | 100.0 |
| All stores | 28.1 | 20.6 | 23.1 | 10.5 | 10.2 | 7.5 | 100.0 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | 25.0 | 20.0 | - | 50.0 | - | 5.0 | 100.0 |
| Supermarket | 32.2 | 16.2 | 5.0 | 31.1 | 6.3 | 9.2 | 100.0 |
| Grocery store | 39.9 | 22.6 | 4.1 | 11.4 | 5.4 | 16.6 | 100.0 |
| Neighborhood grocery | 17.2 | 0.1 | 0.9 | 8.6 | 4.5 | 68.7 | 100.0 |
| All stores | 31.6 | 15.7 | 4.0 | 24.9 | 5.6 | 18.2 | 100.0 |
| Washington | | | | | | | |
| Fish market | 10.0 | 30.0 | 20.0 | 20.0 | 5.0 | 15.0 | 100.0 |
| Meat market | 50.0 | 13.6 | 13.6 | 16.1 | 3.1 | 3.6 | 100.0 |
| Supermarket | 24.9 | 5.1 | 7.0 | 38.6 | 11.3 | 13.1 | 100.0 |
| Grocery store | 41.4 | 17.8 | 10.6 | 21.1 | 2.6 | 6.5 | 100.0 |
| Neighborhood grocery | 46.9 | 9.9 | 13.4 | 15.2 | 2.6 | 12.0 | 100.0 |
| All stores | 20.5 | 21.3 | 15.3 | 24.1 | 6.0 | 12.8 | 100.0 |
| All stores, three states | 25.8 | 20.2 | 17.7 | 17.4 | 8.0 | 10.9 | 100.0 |

1/ Includes California halibut.

TABLE - 83.--SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Sales value | | | | | | |
|---|---|---|---|---|---|---|---|
| | Salmon | Halibut | Sole | Rockfishes | Crab | Other | Total |
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $36,419 | $19,781 | $38,908 | $19,257 | $6,157 | $10,480 | $131,002 |
| Supermarket | 121,373 | 108,925 | 88,918 | 37,790 | 61,354 | 26,231 | 444,591 |
| Grocery store | 16,119 | 6,483 | 15,535 | 8,819 | 1,694 | 9,753 | 58,403 |
| Neighborhood grocery | 17,993 | 5,353 | 14,721 | 6,196 | 248 | 5,056 | 49,567 |
| All stores | $191,904 | $140,542 | $158,082 | $72,062 | $69,453 | $51,520 | $683,563 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $2,210 | $1,768 | - | $4,420 | - | $442 | $8,840 |
| Supermarket | 36,723 | 18,476 | $5,702 | 35,469 | $7,185 | 10,492 | 114,047 |
| Grocery store | 16,021 | 9,075 | 1,646 | 4,577 | 2,168 | 6,665 | 40,152 |
| Neighborhood grocery | 4,105 | 24 | 215 | 2,052 | 1,074 | 16,394 | 23,864 |
| All stores | $59,059 | $29,343 | $7,563 | $46,518 | $10,427 | $33,993 | $186,903 |
| Washington | | | | | | | |
| Fish market | $27,625 | $82,875 | $55,250 | $55,250 | $13,812 | $41,438 | $276,250 |
| Meat market | 13,308 | 3,620 | 3,620 | 4,285 | 825 | 958 | 26,616 |
| Supermarket | 27,864 | 5,707 | 7,833 | 43,195 | 12,645 | 14,659 | 111,903 |
| Grocery store | 24,874 | 10,694 | 6,369 | 12,677 | 1,562 | 3,905 | 60,081 |
| Neighborhood grocery | 6,250 | 1,319 | 1,786 | 2,026 | 347 | 1,599 | 13,327 |
| All stores | $99,921 | $104,215 | $74,858 | $117,433 | $29,191 | $62,559 | $488,177 |
| All stores, three states | $350,884 | $274,100 | $240,503 | $236,013 | $109,071 | $148,072 | $1,358,643 |

TABLE - 84.--AVERAGE SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Average total sales | | | | | | |
|---|---|---|---|---|---|---|---|
| | Salmon | Halibut 1/ | Sole | Rockfishes | Crab | Other | Total |
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $775 | $421 | $828 | $409 | $131 | $223 | $2,787 |
| Supermarket | 1,202 | 1,079 | 880 | 374 | 607 | 260 | 4,402 |
| Grocery store | 227 | 91 | 219 | 124 | 24 | 138 | 823 |
| Neighborhood grocery | 281 | 84 | 230 | 96 | 4 | 79 | 774 |
| All stores | $678 | $497 | $558 | $255 | $245 | $182 | $2,415 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $553 | $442 | - | $1,105 | - | $110 | $2,210 |
| Supermarket | 1,148 | 577 | $178 | 1,108 | $225 | 328 | 3,564 |
| Grocery store | 411 | 233 | 42 | 117 | 56 | 171 | 1,030 |
| Neighborhood grocery | 513 | 3 | 27 | 257 | 134 | 2,049 | 2,983 |
| All stores | $1,712 | $354 | $91 | $560 | $126 | $409 | $3,252 |
| Washington 2/ | | | | | | | |
| Fish market | $5,525 | $16,575 | $11,050 | $11,050 | $2,762 | $8,288 | $55,250 |
| Meat market | 666 | 181 | 181 | 214 | 41 | 48 | 1,331 |
| Supermarket | 1,741 | 357 | 490 | 2,700 | 790 | 916 | 6,994 |
| Grocery store | 541 | 232 | 138 | 276 | 34 | 85 | 1,306 |
| Neighborhood grocery | 208 | 44 | 59 | 68 | 12 | 53 | 444 |
| All stores | $1,854 | $891 | $640 | $1,004 | $249 | $534 | $5,172 |
| All stores, three states | $726 | $567 | $498 | $489 | $226 | $307 | $2,813 |

1/ Includes California halibut.
2/ Washington figures calculated on 134 stores reporting.

TABLE - 85.--SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Sales value | | |
|---|---|---|---|
| | Salmon | Halibut 1/ | Sole |
| Fish market | $27,625 | $82,875 | $55,250 |
| Meat market | 51,937 | 25,169 | 42,528 |
| Supermarket | 185,960 | 133,108 | 102,453 |
| Grocery store | 57,014 | 26,252 | 23,550 |
| Neighborhood grocery | 28,348 | 6,696 | 16,722 |
| All stores | $350,884 | $274,100 | $240,503 |

| Type of store | Sales value - continued | | | |
|---|---|---|---|---|
| | Rockfishes | Crab | Other | Total |
| Fish market | $55,250 | $13,812 | $41,438 | $276,250 |
| Meat market | 27,962 | 6,982 | 11,880 | 166,458 |
| Supermarket | 116,454 | 81,184 | 51,382 | 670,541 |
| Grocery store | 26,073 | 5,424 | 20,323 | 158,636 |
| Neighborhood grocery | 10,274 | 1,669 | 23,049 | 86,758 |
| All stores | $236,013 | $109,071 | $148,072 | $1,358,643 |

1/ Includes California halibut.

TABLE - 86.--AVERAGE SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Average sales | | |
|---|---|---|---|
| | Salmon | Halibut 1/ | Sole |
| Fish market | $5,525 | $16,575 | $11,050 |
| Meat market | 732 | 354 | 599 |
| Supermarket | 1,248 | 893 | 688 |
| Grocery store | 366 | 168 | 151 |
| Neighborhood grocery | 278 | 66 | 164 |
| All stores | $726 | $567 | $498 |
| | Percent of sales | | |
| Fish market | 10.0 | 30.0 | 20.0 |
| Meat market | 31.2 | 15.1 | 25.6 |
| Supermarket | 27.7 | 19.8 | 15.3 |
| Grocery store | 36.0 | 16.5 | 14.9 |
| Neighborhood grocery | 32.7 | 7.7 | 19.3 |
| All stores | 25.8 | 20.2 | 17.7 |

| Type of store | Average sales - continued | | | |
|---|---|---|---|---|
| | Rockfishes | Crab | Other | Total |
| Fish market | $11,050 | $2,762 | $8,288 | $55,250 |
| Meat market | 394 | 98 | 167 | 2,344 |
| Supermarket | 781 | 545 | 345 | 4,500 |
| Grocery store | 167 | 35 | 130 | 1,017 |
| Neighborhood grocery | 101 | 16 | 226 | 851 |
| All stores | $489 | $226 | $307 | $2,813 |
| | Percent of sales | | | |
| Fish market | 20.0 | 5.0 | 15.0 | 100.0 |
| Meat market | 16.8 | 4.2 | 7.1 | 100.0 |
| Supermarket | 17.4 | 12.1 | 7.7 | 100.0 |
| Grocery store | 16.4 | 3.4 | 12.8 | 100.0 |
| Neighborhood grocery | 11.9 | 1.9 | 26.5 | 100.0 |
| All stores | 17.4 | 8.0 | 10.9 | 100.0 |

1/ Includes California halibut.

TABLE - 87.--PERCENT OF STORES RECEIVING DELIVERIES OF FRESH FISH, PACIFIC COAST STATES, 1955

| Type of store | Percent receiving delivery | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Fish market | 100.0 | - | - | 58.0 |
| Meat market | 89.4 | 100.0 | 80.0 | 87.3 |
| Supermarket | 100.0 | 100.0 | 100.0 | 100.0 |
| Grocery store | 90.1 | 89.7 | 100.0 | 92.9 |
| Neighborhood grocery | 93.8 | 100.0 | 70.0 | 87.3 |

TABLE - 88.--NUMBER OF FRESH FISH DELIVERIES PER WEEK, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Number of deliveries weekly | Stores receiving deliveries | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Neighborhood grocery | | Grocery store | | Super-market | | Meat market | | All stores | |
| | No. | Per-cent | No. | Per-cent | No. | Per-cent | No. | Per-cent | No. | Per-cent |
| 1 | 60 | 67.4 | 82 | 56.5 | 75 | 50.3 | 25 | 40.3 | 242 | 54.3 |
| 2 | 14 | 15.7 | 35 | 24.1 | 20 | 13.4 | 8 | 12.9 | 77 | 17.3 |
| 3 | 4 | 4.5 | 13 | 9.0 | 23 | 15.4 | 4 | 6.5 | 44 | 9.9 |
| 4 | 4 | 4.5 | 4 | 2.8 | 2 | 1.4 | 4 | 6.5 | 14 | 3.1 |
| 5 | - | - | 3 | 2.1 | 4 | 2.7 | 4 | 6.5 | 11 | 2.5 |
| 6 | - | - | - | - | 7 | 4.7 | 4 | 6.4 | 11 | 2.5 |
| 7 | - | - | - | - | 4 | 2.7 | 4 | 6.4 | 8 | 1.8 |
| When wanted | 7 | 7.9 | 5 | 3.4 | 14 | 9.4 | 9 | 14.5 | 35 | 7.9 |
| Less than once a week | - | - | 3 | 2.1 | - | - | - | - | 3 | 0.7 |
| Total | 89 | 100.0 | 145 | 100.0 | 149 | 100.0 | 62 | 100.0 | 445 | 100.0 |

TABLE - 89.--PERCENT OF STORES HAVING SELF-SERVICE MEAT COUNTERS, PACIFIC COAST STATES, 1955

| Type of store | Percent with self-service | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Fish market | - | - | - | - |
| Meat market | 8.5 | - | 20.0 | 11.3 |
| Supermarket | 19.8 | 44.0 | 93.8 | 32.9 |
| Grocery store | - | 31.0 | 37.0 | 18.6 |
| Neighborhood grocery | - | - | 30.0 | 8.8 |
| All stores | 8.3 | 31.3 | 38.5 | 19.4 |

TABLE - 90.--PERCENT OF STORES HAVING SELF-SERVICE FOR FRESH FISH, PACIFIC COAST STATES, 1955

| Type of store | Percent with self-service | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Fish market | - | - | - | - |
| Meat market | - | - | - | - |
| Supermarket | 18.8 | 28.1 | 68.8 | 26.2 |
| Grocery store | - | - | 22.0 | 6.4 |
| Neighborhood grocery | - | - | 13.3 | 3.9 |
| All stores | 6.6 | 10.8 | 21.4 | 10.8 |

TABLE - 91.--RETAIL STORES PROCESSING OR PACKAGING FRESH FISH, PACIFIC COAST STATES, 1955

| Type of store | Percent processing or packaging | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| Fish market | - | - | - | - |
| Meat market | - | - | - | - |
| Supermarket | 14.9 | 40.6 | 93.8 | 28.9 |
| Grocery store | - | - | 21.7 | 6.4 |
| Neighborhood grocery | - | - | 13.3 | 3.9 |
| Other | - | - | - | - |
| All stores | 5.2 | 15.7 | 24.8 | 11.6 |

TABLE - 92.--COMPLAINTS ABOUT THE QUALITY OF FRESH FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Not fresh | Wormy | Off-color | Other | Total |
|---|---|---|---|---|---|
| | | | Number | | |
| Meat market | 12 | - | - | - | 12 |
| Supermarket | 24 | 15 | 8 | 11 | 58 |
| Grocery store | 8 | 7 | - | 7 | 22 |
| Neighborhood grocery | 8 | 9 | 4 | 13 | 34 |
| All stores | 52 | 31 | 12 | 31 | 126 |
| | | | Percent | | |
| Meat market | 100.0 | - | - | - | 100.0 |
| Supermarket | 41.4 | 25.9 | 13.8 | 18.9 | 100.0 |
| Grocery store | 36.4 | 31.8 | - | 31.8 | 100.0 |
| Neighborhood grocery | 23.5 | 26.5 | 11.8 | 38.2 | 100.0 |
| All stores | 41.3 | 24.6 | 9.5 | 24.6 | 100.0 |

TABLE - 93.--PROBLEMS IN HANDLING FRESH FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955 1/

| Type of store | Stores reporting problems | | | | | |
|---|---|---|---|---|---|---|
| | Need special case for fish | Short shelf life and slow turnover | Floor space not adequate | Don't like to handle fish with meat | Other | Total |
| | | | Number | | | |
| Meat market | 8 | 10 | 3 | - | - | 21 |
| Supermarket | 12 | 22 | - | 5 | 22 | 61 |
| Grocery store | 18 | 13 | 17 | 7 | 13 | 68 |
| Neighborhood grocery | 13 | 13 | 8 | 13 | 11 | 58 |
| All stores | 51 | 58 | 28 | 25 | 46 | 208 |
| | | | Percent | | | |
| Meat market | 38.1 | 47.6 | 14.3 | - | - | 100.0 |
| Supermarket | 19.6 | 36.1 | - | 8.2 | 36.1 | 100.0 |
| Grocery store | 26.5 | 19.1 | 25.0 | 10.3 | 19.1 | 100.0 |
| Neighborhood grocery | 22.4 | 22.4 | 13.8 | 22.4 | 19.0 | 100.0 |
| All stores | 24.5 | 27.9 | 13.5 | 12.0 | 22.1 | 100.0 |

1/ Fish markets reported no special problems.

TABLE - 94.--NUMBER AND PERCENT OF INTERVIEWED STORES USING ICE IN FRESH FISH DISPLAY CABINETS, PACIFIC COAST STATES, 1955

| State | Number | | | Percent | | |
|---|---|---|---|---|---|---|
| | Yes | No | Total | Yes | No | Total |
| California | 164 | 126 | 290 | 56.6 | 43.4 | 100.0 |
| Oregon | 39 | 44 | 83 | 47.0 | 53.0 | 100.0 |
| Washington | 51 | 66 | 117 | 43.6 | 56.4 | 100.0 |
| Three states | 254 | 236 | 490 | 51.8 | 48.2 | 100.0 |

TABLE - 95.--REASONS FOR NOT ICING FRESH FISH IN DISPLAY CABINETS, PACIFIC COAST STATES, 1955

| Type of store | Display case not adapted for icing fish | Not necessary in modern refrig-eration | Moisture damages packages | Turnover is fast enough so that ice not necessary | Other | Total |
|---|---|---|---|---|---|---|
| | | | Number | | | |
| Fish market | - | 5 | - | - | - | 5 |
| Meat market | 8 | 8 | - | - | 17 | 33 |
| Supermarket | 26 | 25 | 18 | 4 | 4 | 77 |
| Grocery store | 37 | 24 | - | 14 | 12 | 87 |
| Neighborhood grocery | 12 | 16 | 4 | 8 | 13 | 53 |
| All stores | 83 | 78 | 22 | 26 | 46 | 255 |
| | | | Percent | | | |
| Fish market | - | 100.0 | - | - | - | 100.0 |
| Meat market | 24.2 | 24.2 | - | - | 51.6 | 100.0 |
| Supermarket | 33.7 | 32.5 | 23.4 | 5.2 | 5.2 | 100.0 |
| Grocery store | 42.5 | 27.6 | - | 16.1 | 13.8 | 100.0 |
| Neighborhood grocery | 22.7 | 30.2 | 7.5 | 15.1 | 24.5 | 100.0 |
| All stores | 32.6 | 30.6 | 8.6 | 10.2 | 18.0 | 100.0 |

TABLE - 96.--METHODS FOR DETERMINING THE SELLING PRICE OF FRESH FISH, PACIFIC COAST STATES, 1955

| Type of store | No set markup, follow competition | Fixed percent on all fish products | Fixed percent on individual fish products | Price suggested by distributor | Other | Total |
|---|---|---|---|---|---|---|
| | | | Number | | | |
| Fish market | 5 | 7 | - | - | - | 12 |
| Meat market | 19 | 23 | 25 | 4 | - | 71 |
| Supermarket | 68 | 28 | 42 | 4 | 10 | 152 |
| Grocery store | 58 | 56 | 39 | 5 | 7 | 165 |
| Neighborhood grocery | 46 | 28 | 28 | 4 | - | 106 |
| All stores | 196 | 142 | 134 | 17 | 17 | 506 |
| | | | Percent | | | |
| Fish market | 41.7 | 58.3 | - | - | - | 100.0 |
| Meat market | 26.8 | 32.4 | 35.2 | 5.6 | - | 100.0 |
| Supermarket | 44.7 | 18.4 | 27.7 | 2.6 | 6.6 | 100.0 |
| Grocery store | 35.2 | 33.9 | 23.6 | 3.0 | 4.3 | 100.0 |
| Neighborhood grocery | 43.4 | 26.4 | 26.4 | 3.8 | - | 100.0 |
| All stores | 38.7 | 28.0 | 26.5 | 3.4 | 3.4 | 100.0 |

TABLE - 97.--CHANGES IN VOLUME OF FRESH FISH SALES, PACIFIC COAST STATES, 1955

| Type of store | Stores reporting changes | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | | | | Percent | | | |
| | In-creased | De-creased | No change | Total | In-creased | De-creased | No change | Total |
| Fish market | 7 | 5 | - | 12 | 58.3 | 41.7 | - | 100.0 |
| Meat market | 17 | 26 | 28 | 71 | 24.0 | 36.6 | 39.4 | 100.0 |
| Supermarket | 41 | 19 | 89 | 149 | 27.5 | 12.8 | 59.7 | 100.0 |
| Grocery store | 21 | 11 | 124 | 156 | 13.5 | 7.0 | 79.5 | 100.0 |
| Neighborhood grocery | 9 | 21 | 72 | 102 | 8.8 | 20.6 | 70.6 | 100.0 |
| All stores | 95 | 82 | 313 | 490 | 19.4 | 16.7 | 63.9 | 100.0 |

TABLE - 98.--REASONS FOR INCREASES IN FRESH FISH SALES, PACIFIC COAST STATES, 1955

| Type of store | Reasons for increases | | | | | |
|---|---|---|---|---|---|---|
| | Better merchan-dizing | Adver-tising | Total store sales increased | Self-service | Other | Total |
| | | | Number | | | |
| Fish market | - | 4 | - | - | 7 | 11 |
| Meat market | 13 | - | 4 | - | - | 17 |
| Supermarket | 20 | 7 | 16 | 4 | 4 | 51 |
| Grocery store | 13 | 8 | 4 | 4 | 5 | 34 |
| Neighborhood grocery | - | - | - | - | 9 | 9 |
| All stores | 46 | 19 | 24 | 8 | 25 | 122 |
| | | | Percent | | | |
| Fish market | - | 36.4 | - | - | 63.6 | 100.0 |
| Meat market | 76.5 | - | 23.5 | - | - | 100.0 |
| Supermarket | 39.2 | 13.7 | 31.4 | 7.8 | 7.9 | 100.0 |
| Grocery store | 38.2 | 23.5 | 11.8 | 11.8 | 14.7 | 100.0 |
| Neighborhood grocery | - | - | - | - | 100.0 | 100.0 |
| All stores | 37.7 | 15.6 | 19.7 | 6.5 | 20.5 | 100.0 |

TABLE - 99.--REASONS FOR DECREASES IN FRESH FISH SALES, PACIFIC COAST STATES, 1955

| Type of store | Reasons for decreases | | | | | |
|---|---|---|---|---|---|---|
| | Competition from new stores | Fish prices too high | Trend to frozen packaged | Total store sales down | Other | Total |
| | | | Number | | | |
| Fish market | 5 | - | - | - | - | 5 |
| Meat market | 15 | - | - | 4 | 11 | 30 |
| Supermarket | 8 | - | 4 | - | 7 | 19 |
| Grocery store | 2 | 4 | 4 | 4 | 1 | 15 |
| Neighborhood grocery | 10 | - | 4 | - | 7 | 21 |
| All stores | 40 | 4 | 12 | 8 | 26 | 90 |
| | | | Percent | | | |
| Fish market | 100.0 | - | - | - | - | 100.0 |
| Meat market | 50.0 | - | - | 13.3 | 36.7 | 100.0 |
| Supermarket | 42.1 | - | 21.1 | - | 36.8 | 100.0 |
| Grocery store | 13.3 | 26.7 | 26.7 | 26.7 | 6.6 | 100.0 |
| Neighborhood grocery | 47.6 | - | 19.1 | - | 33.3 | 100.0 |
| All stores | 44.5 | 4.4 | 13.3 | 8.9 | 28.9 | 100.0 |

TABLE - 100.--MOTIVE FOR HANDLING FRESH FISH IN RETAIL STORES, PACIFIC COAST STATES, 1955

| State and type of store | Number | | | Percent | | |
|---|---|---|---|---|---|---|
| | Profit item | Service item | Both | Profit item | Service item | Both |
| California | | | | | | |
| Fish market | 7 | - | - | 100.0 | - | - |
| Meat market | 17 | 22 | 8 | 36.2 | 46.8 | 17.0 |
| Supermarket | 14 | 59 | 28 | 13.9 | 58.4 | 27.7 |
| Grocery store | 7 | 49 | 15 | 9.9 | 69.0 | 21.1 |
| Neighborhood grocery | 11 | 32 | 21 | 17.2 | 50.0 | 32.8 |
| All stores | 56 | 162 | 72 | 19.3 | 55.9 | 24.8 |
| Oregon | | | | | | |
| Fish market | - | - | - | - | - | - |
| Meat market | - | - | 4 | - | - | 100.0 |
| Supermarket | 3 | 14 | 15 | 9.4 | 43.7 | 46.9 |
| Grocery store | 8 | 22 | 9 | 20.5 | 56.4 | 23.1 |
| Neighborhood grocery | 4 | 4 | - | 50.0 | 50.0 | - |
| All stores | 15 | 40 | 28 | 18.1 | 48.2 | 33.7 |
| Washington | | | | | | |
| Fish market | 5 | - | - | 100.0 | - | - |
| Meat market | 4 | 16 | - | 20.0 | 80.0 | - |
| Supermarket | 14 | 1 | 1 | 87.4 | 6.3 | 6.3 |
| Grocery store | 7 | 36 | 3 | 15.2 | 78.3 | 6.5 |
| Neighborhood grocery | - | 26 | 4 | - | 86.7 | 13.3 |
| All stores | 30 | 79 | 8 | 25.7 | 67.5 | 6.8 |
| All stores, three states | 101 | 281 | 108 | 20.6 | 57.4 | 22.0 |

TABLE - 101.--STORES SELLING SMOKED SALMON, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Stores selling smoked salmon | |
|---|---|---|
| | Number | Percent |
| California | | |
| Fish market | 7 | 100.0 |
| Meat market | 20 | 28.6 |
| Supermarket | 63 | 41.7 |
| Grocery store | 29 | 17.8 |
| Neighborhood grocery | 44 | 18.2 |
| All stores | 163 | 25.6 |
| Oregon | | |
| Fish market | - | - |
| Meat market | 4 | 100.0 |
| Supermarket | 30 | 93.8 |
| Grocery store | 24 | 48.0 |
| Neighborhood grocery | 4 | 25.0 |
| General store | 4 | 25.0 |
| All stores | 66 | 62.3 |
| Washington | | |
| Fish market | 5 | 100.0 |
| Meat market | 20 | 100.0 |
| Supermarket | 16 | 100.0 |
| Grocery store | 55 | 83.3 |
| Neighborhood grocery | 13 | 24.1 |
| All stores | 109 | 67.7 |
| All stores, three states | 338 | 37.4 |

TABLE - 102.--STORES SELLING SMOKED SABLEFISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Stores selling smoked sablefish | |
|---|---|---|
| | Number | Percent |
| California | | |
| Fish market | 7 | 100.0 |
| Meat market | 4 | 5.7 |
| Supermarket | 32 | 21.2 |
| Grocery Store | 2 | 1.2 |
| Neighborhood grocery | 8 | 3.3 |
| All stores | 53 | 8.3 |
| Oregon | | |
| Fish market | - | - |
| Meat market | - | - |
| Supermarket | 5 | 15.6 |
| Grocery store | 3 | 6.0 |
| Neighborhood grocery | 4 | 25.0 |
| All stores | 12 | 11.3 |
| Washington | | |
| Fish market | 5 | 100.0 |
| Meat market | 4 | 20.0 |
| Supermarket | 13 | 81.3 |
| Grocery store | 12 | 18.2 |
| Neighborhood grocery | - | - |
| All stores | 34 | 21.1 |
| All stores, three states | 99 | 11.0 |

TABLE - 103.--RETAIL STORES HAVING COMPLAINTS ABOUT SMOKED FISH PRODUCTS, PACIFIC COAST STATES, 1955

| Type of store | Percent of stores with complaints | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| Fish market | - | - | 100.0 | 41.7 |
| Meat market | 20.0 | 100.0 | 66.7 | 36.4 |
| Supermarket | 14.9 | 58.1 | 56.3 | 32.5 |
| Grocery store | - | - | 9.1 | 9.1 |
| Neighborhood grocery | 6.2 | - | 38.5 | 12.3 |
| General store | - | - | - | - |
| Total | 9.9 | 34.9 | 28.6 | 20.5 |

TABLE - 104.--PERCENT OF COMPLAINTS ABOUT SMOKED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Price too high | Wrap not adequate | Quality not uniform | Moisture not uniform | Package size not uniform | Too high moisture content | Other |
|---|---|---|---|---|---|---|---|
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | - | - | 50.0 | - | - | 25.0 | 25.0 |
| Supermarket | 20.0 | - | 60.0 | - | - | - | 20.0 |
| Grocery store | - | - | - | - | - | - | - |
| Neighborhood grocery | - | 50.0 | - | - | 50.0 | - | - |
| All stores | 8.3 | 12.5 | 41.7 | - | 12.5 | 8.3 | 16.7 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | 100.0 | - | - | - | - | - | - |
| Supermarket | 28.6 | 32.1 | 17.8 | 3.6 | - | 3.6 | 14.3 |
| Grocery store | - | - | - | - | - | - | - |
| Neighborhood grocery | - | - | - | - | - | - | - |
| All stores | 37.5 | 28.2 | 15.6 | 3.1 | - | 3.1 | 12.5 |
| Washington | | | | | | | |
| Fish market | - | - | 50.0 | 50.0 | - | - | - |
| Meat market | - | - | 50.0 | - | 50.0 | - | - |
| Supermarket | 28.6 | 7.1 | 35.7 | 7.1 | - | - | 21.5 |
| Grocery store | - | - | 60.0 | - | - | - | 40.0 |
| Neighborhood grocery | - | - | 100.0 | - | - | - | - |
| All stores | 9.5 | 2.4 | 52.4 | 14.3 | 9.5 | - | 11.9 |
| Three state average | 18.4 | 13.3 | 37.7 | 7.1 | 7.1 | 3.1 | 13.3 |

TABLE - 105.--INTERVIEWED STORES SELLING FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Stores handling | |
|---|---|---|
| | Number | Percent |
| California | | |
| Fish market | - | - |
| Meat market | 44 | 62.9 |
| Supermarket | 151 | 100.0 |
| Grocery store | 163 | 100.0 |
| Neighborhood grocery | 226 | 93.4 |
| General store | 4 | 100.0 |
| All stores | 588 | 92.3 |
| Oregon | | |
| Fish market | - | - |
| Meat market | 4 | 100.0 |
| Supermarket | 32 | 100.0 |
| Grocery store | 47 | 94.0 |
| Neighborhood grocery | 12 | 75.0 |
| General store | 4 | 100.0 |
| All stores | 99 | 93.4 |
| Washington | | |
| Fish market | 5 | 100.0 |
| Meat market | 12 | 60.0 |
| Supermarket | 16 | 100.0 |
| Grocery store | 62 | 93.9 |
| Neighborhood grocery | 44 | 81.5 |
| General store | - | - |
| All stores | 139 | 86.3 |
| Three states, all stores | 826 | 91.4 |

TABLE - 106.--SALES VALUE OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Sales value | | | | | | |
|---|---|---|---|---|---|---|---|
| | Salmon | Halibut 1/ | Sole | Rockfishes | Crab | Other | Total |
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $17,919 | $24,897 | $45,037 | $21,567 | - | $49,160 | $158,580 |
| Supermarket | 50,288 | 131,866 | 112,310 | 56,434 | $14,528 | 193,330 | 558,756 |
| Grocery store | 9,404 | 26,361 | 33,453 | 16,187 | 617 | 68,139 | 154,161 |
| Neighborhood grocery | 4,795 | 17,827 | 23,874 | 11,885 | 730 | 45,141 | 104,252 |
| General store | 100 | 100 | - | 200 | - | - | 400 |
| All stores | $82,506 | $201,051 | $214,674 | $106,273 | $15,875 | $355,770 | $976,149 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $707 | $884 | $2,210 | $442 | $177 | $4,420 | $8,840 |
| Supermarket | 5,481 | 6,469 | 7,950 | 6,568 | 148 | 22,764 | 49,380 |
| Grocery store | 5,167 | 10,387 | 8,235 | 4,144 | - | 25,888 | 53,821 |
| Neighborhood grocery | 36 | 143 | 79 | 79 | - | 635 | 972 |
| General store | 74 | 43 | 43 | 676 | - | 660 | 1,496 |
| All stores | $11,465 | $17,926 | $18,517 | $11,909 | $325 | $54,367 | $114,509 |
| Washington 2/ | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $659 | $994 | $1,319 | $1,319 | $678 | $4,319 | $9,288 |
| Supermarket | 372 | 656 | 1,771 | 1,159 | 1,356 | 16,556 | 21,870 |
| Grocery store | 3,397 | 2,843 | 4,433 | 3,373 | 313 | 9,733 | 24,092 |
| Neighborhood grocery | 1,078 | 1,586 | 1,740 | 1,386 | - | 9,610 | 15,400 |
| General store | - | - | - | - | - | - | - |
| All stores | $5,506 | $6,079 | $9,263 | $7,237 | $2,347 | $40,218 | $70,650 |
| All stores, three states | $99,477 | $225,056 | $242,454 | $125,419 | $18,547 | $450,355 | $1,161,308 |

1/ Includes California halibut.
2/ Washington figures calculated on 134 of 139 stores reporting.
Note: Based on 821 sample stores.

TABLE - 107.--AVERAGE SALES OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Average total sales | | | | | | |
|---|---|---|---|---|---|---|---|
| | Salmon | Halibut 1/ | Sole | Rockfishes | Crab | Other | Total |
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $407 | $566 | $1,024 | $490 | - | $1,117 | $3,604 |
| Supermarket | 333 | 873 | 744 | 374 | $96 | 1,280 | 3,700 |
| Grocery store | 58 | 162 | 205 | 99 | 4 | 418 | 946 |
| Neighborhood grocery | 21 | 79 | 106 | 52 | 3 | 200 | 461 |
| General store | 25 | 25 | - | 50 | - | - | 100 |
| All stores | $140 | $342 | $365 | $181 | $27 | $605 | $1,660 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $177 | $221 | $553 | $110 | $44 | $1,105 | $2,210 |
| Supermarket | 171 | 202 | 249 | 205 | 5 | 711 | 1,543 |
| Grocery store | 110 | 221 | 175 | 88 | - | 551 | 1,145 |
| Neighborhood grocery | 3 | 12 | 7 | 7 | - | 52 | 81 |
| General store | 18 | 11 | 11 | 169 | - | 165 | 374 |
| All stores | $116 | $181 | $187 | $121 | $3 | $549 | $1,157 |
| Washington 2/ | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | $55 | $83 | $110 | $110 | $56 | $360 | $774 |
| Supermarket | 23 | 41 | 111 | 72 | 85 | 1,035 | 1,367 |
| Grocery store | 55 | 46 | 72 | 54 | 5 | 157 | 389 |
| Neighborhood grocery | 24 | 36 | 40 | 32 | - | 218 | 350 |
| All stores | $41 | $45 | $69 | $54 | $18 | $300 | $527 |
| All stores, three states | $121 | $274 | $295 | $153 | $23 | $549 | $1,415 |

1/ Includes California halibut.
2/ Washington figures calculated on 134 of 139 stores reporting.

Note: Based on 821 sample stores.

TABLE - 108.--RELATIVE IMPORTANCE OF DOLLAR SALES OF SELECTED KINDS OF FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| State and type of store | Percent of total sales | | | | | | |
|---|---|---|---|---|---|---|---|
| | Salmon | Halibut 1/ | Sole | Rockfishes | Crab | Other | Total |
| California | | | | | | | |
| Fish market | - | - | - | - | - | - | 100.0 |
| Meat market | 11.3 | 15.7 | 28.4 | 13.6 | - | 31.0 | 100.0 |
| Supermarket | 9.0 | 23.6 | 20.1 | 10.1 | 2.6 | 34.6 | 100.0 |
| Grocery store | 6.1 | 17.1 | 21.7 | 10.5 | 0.4 | 44.2 | 100.0 |
| Neighborhood grocery | 4.6 | 17.1 | 22.9 | 11.4 | 0.7 | 43.3 | 100.0 |
| General store | 25.0 | 25.0 | - | 50.0 | - | - | 100.0 |
| All stores | 8.5 | 20.6 | 22.0 | 10.9 | 1.6 | 36.4 | 100.0 |
| Oregon | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | 8.0 | 10.0 | 25.0 | 5.0 | 2.0 | 50.0 | 100.0 |
| Supermarket | 11.1 | 13.1 | 16.1 | 13.3 | 0.3 | 46.1 | 100.0 |
| Grocery store | 9.6 | 19.3 | 15.3 | 7.7 | - | 48.1 | 100.0 |
| Neighborhood grocery | 3.7 | 14.7 | 8.1 | 8.1 | - | 65.4 | 100.0 |
| General store | 4.9 | 2.9 | 2.9 | 45.2 | - | 44.1 | 100.0 |
| All stores | 10.0 | 15.6 | 16.2 | 10.4 | 0.3 | 47.5 | 100.0 |
| Washington 2/ | | | | | | | |
| Fish market | - | - | - | - | - | - | - |
| Meat market | 7.1 | 10.7 | 14.2 | 14.2 | 7.3 | 46.5 | 100.0 |
| Supermarket | 1.7 | 3.0 | 8.1 | 5.3 | 6.2 | 75.7 | 100.0 |
| Grocery store | 14.1 | 11.8 | 18.4 | 14.0 | 1.3 | 40.4 | 100.0 |
| Neighborhood grocery | 7.0 | 10.3 | 11.3 | 9.0 | - | 62.4 | 100.0 |
| All stores | 7.8 | 8.6 | 13.1 | 10.3 | 3.3 | 56.9 | 100.0 |
| All stores, three states | 8.5 | 19.4 | 20.9 | 10.8 | 1.6 | 38.8 | 100.0 |

1/ Includes California halibut.
2/ Washington figures calculated on 134 of 139 stores reporting.
Note: Based on 821 sample stores.

TABLE - 109.--SALES VALUE OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Sales value | | |
|---|---|---|---|
| | Salmon | Halibut 1/ | Sole |
| Fish market | - | - | - |
| Meat market | $19,285 | $26,775 | $48,566 |
| Supermarket | 56,141 | 138,991 | 122,031 |
| Grocery store | 17,968 | 39,591 | 46,121 |
| Neighborhood grocery | 5,909 | 19,556 | 25,693 |
| General store | 174 | 143 | 43 |
| All stores | $99,477 | $225,056 | $242,454 |

| Type of store | Sales value - continued | | | |
|---|---|---|---|---|
| | Rockfishes | Crab | Other | Total |
| Fish market | - | - | - | - |
| Meat market | $23,328 | $855 | $57,899 | $176,708 |
| Supermarket | 64,161 | 16,032 | 232,650 | 630,006 |
| Grocery store | 23,704 | 930 | 103,760 | 232,074 |
| Neighborhood grocery | 13,350 | 730 | 55,386 | 120,624 |
| General store | 876 | - | 660 | 1,896 |
| All stores | $125,419 | $18,547 | $450,355 | $1,161,308 |

1/ Includes California halibut.

Note: Based on 821 sample stores.

TABLE - 110.--RELATIVE IMPORTANCE OF DOLLAR SALES OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Percent | | |
|---|---|---|---|
| | Salmon | Halibut 1/ | Sole |
| Fish market | - | - | - |
| Meat market | 10.9 | 15.1 | 27.5 |
| Supermarket | 8.9 | 22.1 | 19.4 |
| Grocery store | 7.7 | 17.1 | 19.9 |
| Neighborhood grocery | 4.9 | 16.2 | 21.3 |
| General store | 9.2 | 7.5 | 2.3 |
| All stores | 8.5 | 19.4 | 20.9 |

| Type of store | Percent - continued | | | |
|---|---|---|---|---|
| | Rockfishes | Crab | Other | Total |
| Fish market | - | - | - | - |
| Meat market | 13.2 | 0.5 | 32.8 | 100.0 |
| Supermarket | 10.2 | 2.5 | 36.9 | 100.0 |
| Grocery store | 10.2 | 0.4 | 44.7 | 100.0 |
| Neighborhood grocery | 11.1 | 0.6 | 45.9 | 100.0 |
| General store | 46.2 | - | 34.8 | 100.0 |
| All stores | 10.8 | 1.6 | 38.8 | 100.0 |

1/ Includes California halibut.

Note: Based on 821 sample stores.

TABLE - 111.--RELATIVE IMPORTANCE OF SELECTED SOURCES OF SUPPLY FOR FROZEN PACKAGED FISH SOLD AT RETAIL, PACIFIC COAST STATES, 1955

| State and type of store | Percent of supply by source | | | | | |
|---|---|---|---|---|---|---|
| | Local frozen food wholesaler | Other West Coast wholesalers | Dairy products wholesaler | Local fish wholesaler | Other 1/ | Total |
| **Washington** | | | | | | |
| Fish market | - | - | - | 100.0 | - | 100.0 |
| Meat market | 100.0 | - | - | - | - | 100.0 |
| Supermarket | 75.2 | 24.8 | - | - | - | 100.0 |
| Grocery store | 91.9 | 8.1 | - | - | - | 100.0 |
| Neighborhood grocery | 86.4 | 13.6 | - | - | - | 100.0 |
| General store | - | - | - | - | - | - |
| All stores | 82.8 | 12.8 | - | 4.4 | - | 100.0 |
| **Oregon** | | | | | | |
| Fish market | - | - | - | - | - | - |
| Meat market | - | - | 100.0 | - | - | 100.0 |
| Supermarket | 70.8 | 16.3 | 12.9 | - | - | 100.0 |
| Grocery store | 68.3 | 19.3 | 11.8 | 0.6 | - | 100.0 |
| Neighborhood grocery | 16.0 | - | 84.0 | - | - | 100.0 |
| General store | - | 100.0 | - | - | - | 100.0 |
| All stores | 62.8 | 17.4 | 19.5 | 0.3 | - | 100.0 |
| **California** | | | | | | |
| Fish market | - | - | - | - | - | - |
| Meat market | 59.8 | 21.5 | 6.5 | 12.2 | - | 100.0 |
| Supermarket | 37.7 | 49.6 | 0.6 | 1.1 | 11.0 | 100.0 |
| Grocery store | 39.5 | 51.2 | 6.5 | - | 2.8 | 100.0 |
| Neighborhood grocery | 41.4 | 55.3 | 1.3 | - | 2.0 | 100.0 |
| General store | - | - | 100.0 | - | - | 100.0 |
| All stores | 42.0 | 45.9 | 2.6 | 2.6 | 6.9 | 100.0 |
| All stores, three states | 46.6 | 41.0 | 4.1 | 2.5 | 5.8 | 100.0 |

1/ Includes wholesale grocers and brokers.

Note: Based on 821 sample stores.

TABLE - 112.--SOURCE OF SUPPLY FOR FROZEN PACKAGED FISH SOLD AT RETAIL, PACIFIC COAST STATES, 1955

| State and type of store | Amount purchased by source | | | | | |
|---|---|---|---|---|---|---|
| | Local frozen food wholesaler | Other West Coast wholesalers | Dairy products wholesaler | Local fish wholesaler | Other 1/ | Total |
| **Washington** | | | | | | |
| Fish market | - | - | - | $3,250 | - | $3,250 |
| Meat market | $9,288 | - | - | - | - | 9,288 |
| Supermarket | 16,446 | $5,424 | - | - | - | 21,870 |
| Grocery store | 22,141 | 1,951 | - | - | - | 24,092 |
| Neighborhood grocery | 13,306 | 2,094 | - | - | - | 15,400 |
| General store | - | - | - | - | - | - |
| All stores | $61,181 | $9,469 | - | $3,250 | - | $73,900 |
| **Oregon** | | | | | | |
| Fish market | - | - | - | - | - | - |
| Meat market | - | - | $8,840 | - | - | $8,840 |
| Supermarket | $34,961 | $8,049 | 6,370 | - | - | 49,380 |
| Grocery store | 36,760 | 10,387 | 6,351 | $323 | - | 53,821 |
| Neighborhood grocery | 156 | - | 816 | - | - | 972 |
| General store | - | 1,496 | - | - | - | 1,496 |
| All stores | $71,877 | $19,932 | $22,377 | $323 | - | $114,509 |
| **California** | | | | | | |
| Fish market | - | - | - | - | - | - |
| Meat market | $94,831 | $34,094 | $10,308 | $19,347 | - | $158,580 |
| Supermarket | 210,651 | 277,143 | 3,353 | 6,146 | $61,463 | 558,756 |
| Grocery store | 60,894 | 78,930 | 10,020 | - | 4,317 | 154,161 |
| Neighborhood grocery | 43,160 | 57,652 | 1,355 | - | 2,085 | 104,252 |
| General store | - | - | 400 | - | - | 400 |
| All stores | $409,536 | $447,819 | $25,436 | $25,493 | $67,865 | $976,149 |
| All stores, three states | $542,594 | $477,220 | $47,813 | $29,066 | $67,865 | $1,164,558 |

1/ Includes wholesale grocers and brokers.

Note: Based on 821 sample stores.

TABLE - 113.--COMPLAINTS BY RETAILERS ABOUT FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

| Type of store | Retailers having complaints | | | | | |
|---|---|---|---|---|---|---|
| | Number | | | Percent | | |
| | Yes | No | Total | Yes | No | Total |
| Fish market | 5 | - | 5 | 100.0 | - | 100.0 |
| Meat market | 4 | 56 | 60 | 6.7 | 93.3 | 100.0 |
| Supermarket | 13 | 186 | 199 | 6.5 | 93.5 | 100.0 |
| Grocery store | 27 | 245 | 272 | 9.9 | 90.1 | 100.0 |
| Neighborhood grocery | 20 | 262 | 282 | 7.1 | 92.9 | 100.0 |
| General store | 4 | 4 | 8 | 50.0 | 50.0 | 100.0 |
| All stores | 73 | 753 | 826 | 8.8 | 91.2 | 100.0 |

TABLE - 114.--KINDS OF COMPLAINTS ON FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Total | Off color and flavor | Price too high | Other |
|---|---|---|---|---|
| | Number | Percent | | |
| Fish market | 5 | - | 100.0 | - |
| Meat market | 4 | - | - | 100.0 |
| Supermarket | 17 | 64.7 | - | 35.3 |
| Grocery store | 31 | 29.0 | 35.5 | 35.5 |
| Neighborhood grocery | 24 | 41.7 | 37.5 | 20.8 |
| General store | 4 | 100.0 | - | - |
| All stores, three states | 85 | 40.0 | 24.7 | 35.3 |

Note: Based on 73 stores.

TABLE - 115.--TEMPERATURE OF FROZEN FOOD DISPLAY CABINETS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Temp. in degrees F. | Fish market | Meat market | Super-market | Grocery store | Neighbor-hood grocery | General store | All stores |
|---|---|---|---|---|---|---|---|
| | | | | Number of stores | | | |
| -10° or lower than 0°F. | 5 | - | 20 | 17 | 11 | - | 53 |
| -10° to -5°F. | - | 19 | 53 | 57 | 57 | 4 | 190 |
| -4° to 0°F. | - | 24 | 59 | 88 | 74 | - | 245 |
| 0.1° to 9°F. | - | 5 | 17 | 30 | 17 | - | 69 |
| 10° or higher | - | - | 12 | 8 | 24 | 4 | 48 |
| Don't know | - | 12 | 38 | 72 | 99 | - | 221 |
| Total | 5 | 60 | 199 | 272 | 282 | 8 | 826 |
| | | | | Percent of stores | | | |
| -10° or lower than 0°F. | 100.0 | - | 10.1 | 6.3 | 3.9 | - | 6.4 |
| -10°F. to -5°F. | - | 31.7 | 26.6 | 21.0 | 20.2 | 50.0 | 23.0 |
| -4 to 0 F. | - | 40.0 | 29.7 | 32.3 | 26.3 | - | 29.7 |
| 0.1° to 9°F. | - | 8.3 | 8.5 | 11.0 | 6.0 | - | 8.3 |
| 10° or higher | - | - | 6.0 | 2.9 | 8.5 | 50.0 | 5.8 |
| Don't know | - | 20.0 | 19.1 | 26.5 | 35.1 | - | 26.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 116.--STORES HAVING FROZEN FOOD STORAGE SPACE, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Stores having frozen food storage space | | | | |
|---|---|---|---|---|---|
| | Number | | | Percent | |
| | Yes | No | Total | Yes | No |
| Supermarket | 135 | 64 | 199 | 67.8 | 32.2 |
| Meat market | 32 | 28 | 60 | 53.3 | 46.7 |
| Grocery store | 107 | 165 | 272 | 39.3 | 60.7 |
| Neighborhood grocery | 103 | 179 | 282 | 36.5 | 63.5 |
| Fish market | - | 5 | 5 | - | 100.0 |
| General store | - | 8 | 8 | - | 100.0 |
| Total | 377 | 449 | 826 | 45.6 | 54.4 |

TABLE - 117.--TEMPERATURES OF FROZEN FOOD STORAGE, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Storage temperature | Fish market | Meat market | Super-market | Grocery store | Neighborhood grocery | Total |
|---|---|---|---|---|---|---|
| | | | | Percent | | |
| -10° F. or lower | - | 25.0 | 44.5 | 23.4 | 12.6 | 28.1 |
| -10° F. to -5°F. | - | 25.0 | 10.4 | 22.4 | 24.3 | 18.8 |
| -4° F. to 0° F. | - | 25.0 | 23.7 | 29.9 | 35.9 | 28.9 |
| 0.1° F. to 9° F. | - | - | - | 10.3 | 2.9 | 3.7 |
| 10° F. or higher | - | - | 4.4 | - | 3.9 | 2.7 |
| Don't know temperature | - | 25.0 | 17.0 | 14.0 | 20.4 | 17.8 |

TABLE - 118.--METHODS USED IN DETERMINING THE SELLING PRICE OF FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Type of store | Fixed percentage on all fish products | Fixed percentage on individual fish products | Price suggested by the distributor | Competition | Other and refused | Total |
|---|---|---|---|---|---|---|
| | | | Number | | | |
| Fish market | - | 5 | - | - | - | 5 |
| Meat market | 28 | 8 | 20 | 8 | - | 64 |
| Supermarket | 88 | 54 | 27 | 20 | 10 | 199 |
| Grocery store | 109 | 40 | 100 | 17 | 14 | 280 |
| Neighborhood grocery | 95 | 76 | 75 | 13 | 23 | 282 |
| General store | - | 4 | - | 4 | - | 8 |
| All stores | 320 | 187 | 222 | 62 | 47 | 1/ 838 |
| | | | Percent | | | |
| Fish market | - | 100.0 | - | - | - | 100.0 |
| Meat market | 43.8 | 12.5 | 31.2 | 12.5 | - | 100.0 |
| Supermarket | 44.2 | 27.1 | 13.6 | 10.1 | 5.0 | 100.0 |
| Grocery store | 38.9 | 14.3 | 35.7 | 6.1 | 5.0 | 100.0 |
| Neighborhood grocery | 33.7 | 27.0 | 26.6 | 4.6 | 8.1 | 100.0 |
| General store | - | 50.0 | - | 50.0 | - | 100.0 |
| All stores | 38.2 | 22.3 | 26.5 | 7.4 | 5.6 | 100.0 |

1/ Some stores gave more than one answer.

TABLE - 119.--METHODS OF PREVENTING THE ACCUMULATION OF OLD STOCKS OF FISH PRODUCTS IN DISPLAY CABINETS, PACIFIC COAST STATES, 1955

| Type of store | Number | Rotate packages | Prevent overstocking | Combination of two | Other |
|---|---|---|---|---|---|
| | | Percent | | | |
| Fish market | 5 | - | 100.0 | - | - |
| Meat market | 60 | 55.0 | 38.3 | - | 6.7 |
| Supermarket | 217 | 67.3 | 29.0 | 0.5 | 3.2 |
| Grocery store | 298 | 63.8 | 32.2 | - | 4.0 |
| Neighborhood grocery | 312 | 63.1 | 34.6 | - | 2.3 |
| General store | 8 | 100.0 | - | - | - |
| All stores | 1/ 900 | 63.8 | 32.8 | 0.1 | 3.3 |

1/ The number of methods given do not agree with the number of stores in the sample because of multiple methods used by some stores.

TABLE - 120.--CHANGES IN SALES OF FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1954 AND 1955

| State and change in sales | Percent of stores | | | | | |
|---|---|---|---|---|---|---|
| | Super-market | Grocery store | Neighborhood grocery | Meat market | General store | All stores |
| **Oregon** | | | | | | |
| Increased | 65.6 | 68.1 | - | - | - | 53.5 |
| Decreased | 12.5 | 6.4 | - | - | - | 7.1 |
| Remained same | 21.9 | 25.5 | 100.0 | 100.0 | 100.0 | 39.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Washington** | | | | | | |
| Increased | 100.0 | 50.0 | 36.4 | 33.3 | - | 50.0 |
| Decreased | - | 6.5 | - | 33.3 | - | 6.0 |
| Remained same | - | 43.5 | 54.5 | 33.4 | - | 41.0 |
| Don't know | - | - | 9.1 | - | - | 3.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | - | 100.0 |
| **California** | | | | | | |
| Increased | 56.9 | 31.3 | 34.1 | 9.1 | - | 37.1 |
| Decreased | 7.3 | 14.1 | 9.3 | 20.4 | - | 10.9 |
| Remained same | 31.8 | 52.1 | 56.6 | 70.5 | 100.0 | 50.3 |
| Don't know | 4.0 | 2.5 | - | - | - | 1.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Three states** | | | | | | |
| Increased | 61.8 | 41.9 | 33.0 | 13.3 | - | 41.2 |
| Decreased | 7.5 | 11.0 | 7.4 | 21.7 | - | 9.6 |
| Remained same | 27.7 | 45.6 | 58.2 | 65.0 | 100.0 | 47.5 |
| Don't know | 3.0 | 1.5 | 1.4 | - | - | 1.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 121.--REASONS FOR INCREASE OF FROZEN PACKAGED FISH SALES BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Reasons | Super-market | Grocery store | Neighborhood grocery | Total |
|---|---|---|---|---|
| | | Number of reasons | | |
| Modern display cabinets | 30 | 38 | 20 | 88 |
| Greater variety available | 38 | 34 | 18 | 90 |
| Increase in all frozen food sales | 29 | 14 | 24 | 67 |
| Improvement in display and handling | 30 | 15 | 15 | 60 |
| Promotion | 16 | 23 | 16 | 55 |
| Store volume increased | 7 | 11 | 19 | 37 |
| New and convenient packages | 8 | 3 | 4 | 15 |
| Other reasons for increase | 27 | 5 | 13 | 45 |
| Total | 185 | 143 | 129 | 457 |
| | | Percent of reasons | | |
| Modern display cabinets | 16.2 | 26.5 | 15.5 | 19.3 |
| Greater variety available | 20.6 | 23.8 | 14.0 | 19.7 |
| Increase in all frozen food sales | 15.7 | 9.8 | 18.6 | 14.7 |
| Improvement in display and handling | 16.2 | 10.5 | 11.6 | 13.1 |
| Promotion | 8.6 | 16.1 | 12.4 | 12.0 |
| Store volume increased | 3.8 | 7.7 | 14.7 | 8.1 |
| New and convenient packages | 4.3 | 2.1 | 3.1 | 3.3 |
| Other reasons for increase | 14.6 | 3.5 | 10.1 | 9.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Fish markets, meat markets, and general stores were too small in number to report.

TABLE - 122.--MOTIVE FOR HANDLING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

| Type of store | Number | | | | Percent | | |
|---|---|---|---|---|---|---|---|
| | Profit item | Service item | Both | Total | Profit item | Service item | Both |
| Fish market | - | 5 | - | 5 | - | 100.0 | - |
| Meat market | 20 | 28 | 12 | 60 | 33.3 | 46.7 | 20.0 |
| Supermarket | 103 | 22 | 74 | 199 | 51.8 | 11.0 | 37.2 |
| Grocery store | 150 | 63 | 59 | 272 | 55.1 | 23.2 | 21.7 |
| Neighborhood grocery | 117 | 111 | 54 | 282 | 41.5 | 39.4 | 19.1 |
| General store | - | - | 8 | 8 | - | - | 100.0 |
| All stores | 390 | 229 | 207 | 826 | 47.2 | 27.7 | 25.1 |

TABLE - 123.--RETAILERS' OPINIONS ON SIZE OF PACKAGE PREFERRED BY CONSUMER FOR FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

| State and type of store | Number | | | | Percent | | |
|---|---|---|---|---|---|---|---|
| | Standard size | Varying size | Don't know | Total | Standard size | Varying size | Don't know |
| California | | | | | | | |
| Meat market | 32 | 8 | 4 | 44 | 72.7 | 18.2 | 9.1 |
| Supermarket | 109 | 28 | 14 | 151 | 72.2 | 18.5 | 9.3 |
| Grocery store | 98 | 30 | 35 | 163 | 60.1 | 18.4 | 21.5 |
| Neighborhood grocery | 121 | 51 | 54 | 226 | 53.5 | 22.6 | 23.9 |
| General store | 4 | - | - | 4 | 100.0 | - | - |
| All stores | 364 | 117 | 107 | 588 | 61.9 | 19.9 | 18.2 |
| Oregon | | | | | | | |
| Meat market | 4 | - | - | 4 | 100.0 | - | - |
| Supermarket | 15 | 16 | 1 | 32 | 46.9 | 50.0 | 3.1 |
| Grocery store | 16 | 19 | 12 | 47 | 34.1 | 40.4 | 25.5 |
| Neighborhood grocery | 4 | 4 | 4 | 12 | 33.3 | 33.3 | 33.4 |
| General store | 4 | - | - | 4 | 100.0 | - | - |
| All stores | 43 | 39 | 17 | 99 | 43.4 | 39.4 | 17.2 |
| Washington | | | | | | | |
| Fish market | 5 | - | - | 5 | 100.0 | - | - |
| Meat market | 4 | 8 | - | 12 | 33.3 | 66.7 | - |
| Supermarket | 10 | 6 | - | 16 | 62.5 | 37.5 | - |
| Grocery store | 35 | 7 | 20 | 62 | 56.5 | 11.3 | 32.2 |
| Neighborhood grocery | 20 | 16 | 8 | 44 | 45.4 | 36.4 | 18.2 |
| All stores | 74 | 37 | 28 | 139 | 53.2 | 26.6 | 20.2 |
| All stores, three states | 481 | 193 | 152 | 826 | 58.2 | 23.4 | 18.4 |

TABLE - 124.--PROMOTION OF FISH, BY TYPE OF STORE,
PACIFIC COAST STATES, 1955

| State and type of store | Number | | | Percent | | |
|---|---|---|---|---|---|---|
| | Yes | No | Total | Yes | No | Total |
| California | | | | | | |
| Fish market | 3 | 4 | 7 | 42.9 | 57.1 | 100.0 |
| Meat market | 16 | 54 | 70 | 22.9 | 77.1 | 100.0 |
| Supermarket | 85 | 66 | 151 | 56.3 | 43.7 | 100.0 |
| Grocery store | 27 | 136 | 163 | 16.6 | 83.4 | 100.0 |
| Neighborhood grocery | 31 | 211 | 242 | 12.8 | 87.2 | 100.0 |
| General store | - | 4 | 4 | - | 100.0 | 100.0 |
| All stores | 162 | 475 | 637 | 25.4 | 74.6 | 100.0 |
| Oregon | | | | | | |
| Fish market | - | - | - | - | - | - |
| Meat market | - | 4 | 4 | - | 100.0 | 100.0 |
| Supermarket | 23 | 9 | 32 | 71.9 | 28.1 | 100.0 |
| Grocery store | 4 | 46 | 50 | 8.0 | 92.0 | 100.0 |
| Neighborhood grocery | - | 16 | 16 | - | 100.0 | 100.0 |
| General store | 4 | - | 4 | 100.0 | - | 100.0 |
| All stores | 31 | 75 | 106 | 29.2 | 70.8 | 100.0 |
| Washington | | | | | | |
| Fish market | 5 | - | 5 | 100.0 | - | 100.0 |
| Meat market | 4 | 16 | 20 | 20.0 | 80.0 | 100.0 |
| Supermarket | 10 | 6 | 16 | 62.5 | 37.5 | 100.0 |
| Grocery store | 12 | 54 | 66 | 18.2 | 81.8 | 100.0 |
| Neighborhood grocery | 12 | 42 | 54 | 22.2 | 77.8 | 100.0 |
| All stores | 43 | 118 | 161 | 26.7 | 73.3 | 100.0 |
| All stores, three states | 236 | 668 | 904 | 26.1 | 73.9 | 100.0 |

TABLE - 125.--KIND OF FISHERY PRODUCT PROMOTED, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

| Kind of products | Fish market | Meat market | Super-market | Grocery store | Neighborhood grocery | All stores |
|---|---|---|---|---|---|---|
| | | | Number of retailers promoting | | | |
| Salmon | 8 | - | 84 | 8 | 11 | 111 |
| Halibut | 8 | 4 | 82 | 7 | 11 | 112 |
| Sole | 8 | 4 | 82 | 11 | 18 | 123 |
| Rockfishes | 8 | - | 61 | 4 | 14 | 87 |
| Crab | 8 | - | 49 | 3 | 11 | 71 |
| Shrimp | 8 | - | 69 | 16 | 15 | 108 |
| Fishsticks | 8 | 8 | 99 | 24 | 27 | 166 |
| | | | Percent of retailers | | | |
| Salmon | 66.6 | - | 42.2 | 2.9 | 3.5 | 12.3 |
| Halibut | 66.6 | 4.3 | 41.2 | 2.5 | 3.5 | 12.4 |
| Sole | 66.6 | 4.3 | 41.2 | 3.9 | 5.8 | 13.6 |
| Rockfishes | 66.6 | - | 30.7 | 1.4 | 4.5 | 9.6 |
| Crab | 66.6 | - | 24.6 | 1.1 | 3.5 | 7.9 |
| Shrimp | 66.6 | - | 34.7 | 5.7 | 4.8 | 11.9 |
| Fishsticks | 66.6 | 8.5 | 49.7 | 8.6 | 8.7 | 18.4 |

TABLE - 126.--MEDIA USED BY RETAIL STORES TO PROMOTE FISH, PACIFIC COAST STATES, 1955

| Media | Fish market | Meat market | Super-market | Grocery store | Neighborhood grocery | General store | All stores |
|---|---|---|---|---|---|---|---|
| | | | Number of stores using | | | | |
| Newspaper | 3 | 12 | 103 | 23 | 18 | - | 159 |
| Point of sale | - | 4 | 54 | 23 | 12 | 4 | 97 |
| Handbills | - | 4 | 10 | 10 | 12 | 4 | 40 |
| Store demonstration | - | - | 20 | 2 | - | - | 22 |
| Television | 5 | - | 9 | 1 | - | - | 15 |
| Radio | 5 | 4 | 7 | 4 | - | - | 20 |
| Special prices | - | 12 | 62 | 20 | 14 | 4 | 112 |
| Other | 3 | - | 11 | - | 4 | - | 18 |
| All media | 16 | 36 | 276 | 83 | 60 | 12 | 483 |
| | | | Percent of stores using | | | | |
| Newspaper | 18.8 | 33.3 | 37.3 | 27.7 | 30.0 | - | 32.9 |
| Point of sale | - | 11.1 | 19.6 | 27.7 | 20.0 | 33.3 | 20.1 |
| Handbills | - | 11.1 | 3.6 | 12.1 | 20.0 | 33.3 | 8.3 |
| Store demonstration | - | - | 7.2 | 2.4 | - | - | 4.6 |
| Television | 31.2 | - | 3.3 | 1.2 | - | - | 3.1 |
| Radio | 31.2 | 11.1 | 2.5 | 4.8 | - | - | 4.1 |
| Special prices | - | 33.4 | 22.5 | 24.1 | 23.3 | 33.4 | 23.2 |
| Other | 18.8 | - | 4.0 | - | 6.7 | - | 3.7 |
| All media | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Several stores used more than one media.

TABLE - 127.--RETAILERS' OPINIONS ON EFFECTIVENESS OF SELECTED ADVERTISING MEDIA, PACIFIC COAST STATES, 1955

| Type of advertising | Fish market | Meat market | Super-market | Grocery store | Neighborhood grocery | General store | All stores |
|---|---|---|---|---|---|---|---|
| | | | | Number of answers | | | |
| Newspaper | 4 | 36 | 88 | 96 | 57 | - | 281 |
| Television | 8 | 16 | 39 | 89 | 77 | - | 229 |
| Store demonstrations | - | 4 | 37 | 13 | 20 | - | 74 |
| Point of sale | - | 8 | 20 | 16 | 12 | 4 | 60 |
| Handbills | - | 4 | 4 | 18 | 16 | 4 | 46 |
| Store display | 4 | 5 | 9 | 7 | 10 | - | 35 |
| Radio | - | 4 | 5 | - | 12 | - | 21 |
| Other | - | - | 14 | 21 | 51 | - | 86 |
| Don't know | - | 17 | 13 | 19 | 57 | - | 106 |
| All media | 16 | 94 | 229 | 279 | 312 | 8 | 938 |
| | | | | Percent of answers | | | |
| Newspaper | 25.0 | 38.3 | 38.4 | 34.4 | 18.3 | - | 30.0 |
| Television | 50.0 | 17.0 | 17.0 | 31.9 | 24.7 | - | 24.4 |
| Store demonstrations | - | 4.3 | 16.2 | 4.7 | 6.4 | - | 7.9 |
| Point of sale | - | 8.5 | 8.8 | 5.7 | 3.8 | 50.0 | 6.4 |
| Handbills | - | 4.3 | 1.7 | 6.5 | 5.1 | 50.0 | 4.9 |
| Store display | 25.0 | 5.3 | 3.9 | 2.5 | 3.2 | - | 3.7 |
| Radio | - | 4.2 | 2.2 | - | 3.8 | - | 2.2 |
| Other | - | - | 6.1 | 7.5 | 16.4 | - | 9.2 |
| Don't know | - | 18.1 | 5.7 | 6.8 | 18.3 | - | 11.3 |
| All media | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 128.--RETAILERS' OPINIONS ON FACTORS INFLUENCING SALES OF FISH, PACIFIC COAST STATES, 1955

| Factors | First choice | | Second choice | | Third choice | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Quality | 212 | 23.4 | 174 | 19.2 | 94 | 10.4 |
| Day of the week | 197 | 21.8 | 91 | 10.1 | 80 | 8.9 |
| Display | 105 | 11.6 | 124 | 13.7 | 126 | 13.9 |
| Price of fish | 69 | 7.6 | 98 | 10.8 | 116 | 12.8 |
| Season | 74 | 8.2 | 83 | 9.2 | 113 | 12.5 |
| Promotion | 46 | 5.1 | 46 | 5.1 | 24 | 2.7 |
| Religion | 49 | 5.4 | 5 | 0.6 | 8 | 0.9 |
| Nationality | 34 | 3.8 | 42 | 4.6 | 13 | 1.4 |
| Don't know | 54 | 6.0 | 100 | 11.1 | 190 | 21.0 |
| Attractiveness of the package | 16 | 1.8 | 41 | 4.5 | 68 | 7.5 |
| Knowledge of preparation | - | - | 24 | 2.7 | 30 | 3.3 |
| Other | 48 | 5.3 | 76 | 8.4 | 42 | 4.7 |
| All answers | 904 | 100.0 | 904 | 100.0 | 904 | 100.0 |

TABLE - 129.--SUGGESTED CHANGES IN FISH MARKETING PRACTICES, PACIFIC COAST STATES, 1955

| Type of store | Suggested changes | | | | | | |
|---|---|---|---|---|---|---|---|
| | More frequent delivery | Improved packages for fresh fish | Wholesaler advertising | Standard size package | Antibiotic treatment for fresh fish | Other | Total |
| | Number of suggestions | | | | | | |
| Meat market | 4 | 4 | 8 | - | 5 | 4 | 25 |
| Supermarket | 14 | 9 | 13 | 10 | - | 16 | 62 |
| Grocery store | 4 | 16 | 15 | 4 | 4 | 15 | 58 |
| Neighborhood grocery | 26 | 8 | - | 5 | 6 | 17 | 62 |
| General store | - | - | 4 | - | - | - | 4 |
| All stores | 48 | 37 | 40 | 19 | 15 | 52 | 211 |
| | Percent of suggestions | | | | | | |
| Meat market | 16.0 | 16.0 | 32.0 | - | 20.0 | 16.0 | 100.0 |
| Supermarket | 22.6 | 14.5 | 21.0 | 16.1 | - | 25.8 | 100.0 |
| Grocery store | 6.9 | 27.5 | 25.9 | 6.9 | 6.9 | 25.9 | 100.0 |
| Neighborhood grocery | 41.9 | 12.9 | - | 8.1 | 9.7 | 27.4 | 100.0 |
| General store | - | - | 100.0 | - | - | - | 100.0 |
| All stores | 22.8 | 17.5 | 19.0 | 9.0 | 7.1 | 24.6 | 100.0 |

Note: Based on 61 stores. Some stores gave more than one suggestion.

TABLE - 130.--RELATIVE IMPORTANCE OF SALES OF FRESH, FROZEN PACKAGED, AND SMOKED FISH, BY TYPE OF RETAILER, PACIFIC COAST STATES, 1955

| State and type of retailer | Percent - Total value | | | |
|---|---|---|---|---|
| | Fresh | Frozen packaged | Smoked | Total |
| California | | | | |
| Fish market | - | - | - | - |
| Meat market | 45.0 | 54.4 | 0.6 | 100.0 |
| Supermarket | 42.8 | 53.9 | 3.3 | 100.0 |
| Grocery store | 27.4 | 72.2 | 0.4 | 100.0 |
| Neighborhood grocery | 32.0 | 67.4 | 0.6 | 100.0 |
| General store | - | 100.0 | - | 100.0 |
| Total | 40.3 | 57.5 | 2.2 | 100.0 |
| Oregon | | | | |
| Fish market | - | - | - | - |
| Meat market | 50.0 | 50.0 | - | 100.0 |
| Supermarket | 66.2 | 28.6 | 5.2 | 100.0 |
| Grocery store | 41.8 | 56.0 | 2.2 | 100.0 |
| Neighborhood grocery | 96.1 | 3.9 | - | 100.0 |
| General store | - | 90.1 | 9.9 | 100.0 |
| Total | 59.8 | 36.6 | 3.6 | 100.0 |
| Washington | | | | |
| Fish market | 85.9 | - | 14.1 | 100.0 |
| Meat market | 70.9 | 24.8 | 4.3 | 100.0 |
| Supermarket | 75.4 | 14.7 | 9.9 | 100.0 |
| Grocery store | 68.7 | 27.6 | 3.7 | 100.0 |
| Neighborhood grocery | 43.9 | 50.7 | 5.4 | 100.0 |
| General store | - | - | - | - |
| Total | 78.1 | 11.3 | 10.6 | 100.0 |
| Three states | 51.5 | 44.1 | 4.4 | 100.0 |

TABLE - 131.--RATIO OF FISH SALES TO TOTAL STORE SALES, PACIFIC COAST STATES, 1955

| State and type of retailer | Total gross sales | Total fish sales | Fish sales as percent of total sales |
|---|---|---|---|
| California | | | |
| Meat market | $47,283,160 | $178,940 | .38 |
| Supermarket | 69,418,500 | 623,740 | .90 |
| Grocery store | 19,306,037 | 135,834 | .70 |
| Neighborhood grocery | 15,384,000 | 99,689 | .65 |
| General store | 380,000 | 400 | .11 |
| Total | $151,771,697 | $1,038,603 | .68 |
| Oregon | | | |
| Meat market | $166,400 | $17,680 | 10.62 |
| Supermarket | 12,091,000 | 107,090 | .89 |
| Grocery store | 4,914,000 | 47,176 | .96 |
| Neighborhood grocery | 1,198,456 | 25,520 | 2.13 |
| Total | $18,369,856 | $197,466 | 1.07 |
| Washington | | | |
| Meat market | $2,756,000 | $37,480 | 1.36 |
| Supermarket | 7,800,110 | 120,557 | 1.55 |
| Grocery store | 11,035,000 | 69,790 | .63 |
| Neighborhood grocery | 3,370,000 | 24,852 | .74 |
| Total | $24,961,110 | $252,679 | 1.01 |
| Three states | $195,102,663 | $1,488,748 | .76 |

Note: Based on 576 sample stores. Fish markets excluded.

Tables Nos. 132 - 166

on

Wholesale Distribution

Items in the tables showing a reported number less than 14 and percentages based on a reported number less than 14 do not give reliable indications for the group to which they refer. They are shown for reference purposes only and should not be used as reliable indications for the group because of the small sample response.

WHOLESALE DISTRIBUTION

Sales

TABLE - 132.--ESTIMATED SALES OF FRESH, FROZEN, SMOKED AND CANNED FISH AND SHELLFISH, PACIFIC COAST STATES, 1955

| State | Number of wholesalers | Estimated sales of fish and shellfish | | |
|---|---|---|---|---|
| | | Fresh | Frozen whole | Frozen packaged |
| California | 164 | $44,332,300 | $20,222,100 | $32,489,200 |
| Washington | 76 | 12,571,300 | 13,568,300 | 12,286,700 |
| Oregon | 67 | 8,563,700 | 1,775,100 | 1,894,100 |
| Total | 307 | $65,467,300 | $35,565,500 | $46,670,000 |
| | | Percent | | |
| California | 53.4 | 43.7 | 20.0 | 32.1 |
| Washington | 24.8 | 24.0 | 25.9 | 23.4 |
| Oregon | 21.8 | 55.4 | 11.5 | 12.3 |
| Three states | 100.0 | 38.7 | 21.0 | 27.6 |

| State | Estimated sales of fish and shellfish - continued | | |
|---|---|---|---|
| | Smoked | Canned cured reduced | Total |
| California | $3,474,100 | $820,000 | $101,337,700 |
| Washington | 1,083,000 | 12,932,700 | 52,442,000 |
| Oregon | 261,200 | 2,950,400 | 15,444,500 |
| Total | $4,818,300 | $16,703,100 | $169,224,200 |
| | Percent | | |
| California | 3.4 | 0.8 | 100.0 |
| Washington | 2.1 | 24.6 | 100.0 |
| Oregon | 1.7 | 19.1 | 100.0 |
| Three states | 2.8 | 9.9 | 100.0 |

Note: Based on 307 wholesalers. These figures were computed by multiplying total gross fish sales by the wholesalers' estimated percents that each form of fish represented. Wholesalers primarily in the canned fish business are not included.

TABLE - 133.--ESTIMATED SALES OF SELECTED FORMS OF FISH, BY TYPES OF WHOLESALERS, PACIFIC COAST STATES, 1955

| Form of fish sold | Fresh fish wholesalers | Frozen food wholesalers | All wholesalers |
|---|---|---|---|
| | Estimated sales | | |
| Fresh fish | $65,467,300 | - | $65,467,300 |
| Frozen whole | 35,565,500 | - | 35,565,500 |
| Frozen packaged | 32,914,500 | $13,755,500 | 46,670,000 |
| Smoked | 4,818,300 | - | 4,818,300 |
| Other | 16,703,100 | - | 16,703,100 |
| Total | $155,468,700 | $13,755,500 | $169,224,200 |
| | Percent of sales by type of wholesaler | | |
| Fresh fish | 100.0 | - | 100.0 |
| Frozen whole | 100.0 | - | 100.0 |
| Frozen packaged | 71.0 | 29.0 | 100.0 |
| Smoked | 100.0 | - | 100.0 |
| Other | 100.0 | - | 100.0 |
| Total | 92.0 | 8.0 | 100.0 |

Note: Based on 307 wholesalers.

TABLE - 134.--SALES VALUE OF FROZEN FISH PRODUCTS PURCHASED FROM AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

| State | Total sales value of frozen fish | | Sales value of frozen fish purchased in other areas | |
|---|---|---|---|---|
| | Fresh fish wholesalers | Frozen food wholesalers | Fresh fish wholesalers | Frozen food wholesalers |
| California | $41,449,200 | $11,262,100 | $4,109,000 | $4,164,900 |
| Oregon | 3,030,200 | 639,000 | 78,800 | 199,100 |
| Washington | 24,000,600 | 1,854,400 | 604,900 | 1,039,300 |
| Three states | $68,480,000 | $13,755,500 | $4,792,700 | $5,403,300 |

| State | Percent of total sales purchased in other areas | | |
|---|---|---|---|
| | Fresh fish wholesalers | Frozen food wholesalers | All wholesalers |
| California | 9.9 | 37.0 | 15.7 |
| Oregon | 2.6 | 31.2 | 7.6 |
| Washington | 2.5 | 56.0 | 6.4 |
| Three states | 7.0 | 39.3 | 12.4 |

Note: Based on 202 wholesalers. The remaining wholesalers did not handle frozen fish, or did not give purchase figures.

TABLE - 135.--KINDS OF FROZEN FISHERY PRODUCTS PURCHASED FROM AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

| Products purchased | California | Oregon | Washington | Total |
|---|---|---|---|---|
| | | Number of wholesalers | | |
| None | 39 | 15 | 34 | 88 |
| Shrimp | 116 | 35 | 43 | 194 |
| Scallops | 86 | 24 | 28 | 138 |
| Lobster | 26 | 1 | 16 | 43 |
| Fishsticks | 44 | 11 | 11 | 66 |
| Swordfish | 34 | - | - | 34 |
| Clams | 14 | - | - | 14 |
| Other | 93 | 6 | 12 | 111 |
| | | Percent of wholesalers | | |
| None | 23.0 | 22.0 | 45.0 | 29.0 |
| Shrimp | 70.0 | 52.0 | 57.0 | 63.0 |
| Scallops | 52.0 | 36.0 | 37.0 | 45.0 |
| Lobster | 16.0 | 1.0 | 21.0 | 14.0 |
| Fishsticks | 27.0 | 16.0 | 14.0 | 21.0 |
| Swordfish | 21.0 | - | - | 11.0 |
| Clams | 8.0 | - | - | 5.0 |
| Other | 57.0 | 9.0 | 16.0 | 36.0 |

Note: Based on 307 wholesalers.

TABLE - 136.--SOURCE OF FROZEN FISHERY PRODUCTS PURCHASED IN AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

| Area of production | Shrimp | Scallops | Fish-sticks | Lobster | Sword-fish | Clams | Other |
|---|---|---|---|---|---|---|---|
| | | | Number of wholesalers purchasing | | | | |
| East Coast | - | 69 | 64 | 10 | - | 4 | 54 |
| Japan | 6 | 32 | - | 2 | 29 | 6 | 31 |
| Mexico | 97 | 7 | - | 4 | 4 | 4 | - |
| Gulf Coast | 32 | - | - | 1 | - | - | - |
| Northern Europe | - | - | - | - | - | - | 30 |
| Other | 2 | 5 | 6 | 9 | - | - | 3 |
| All areas | 137 | 113 | 70 | 26 | 33 | 14 | 118 |
| | | | Percent of wholesalers purchasing | | | | |
| East Coast | - | 61.1 | 91.4 | 38.5 | - | 28.6 | 45.8 |
| Japan | 4.4 | 28.3 | - | 7.7 | 87.9 | 42.8 | 26.3 |
| Mexico | 70.7 | 6.2 | - | 15.4 | 12.1 | 28.6 | - |
| Gulf Coast | 23.4 | - | - | 3.8 | - | - | - |
| Northern Europe | - | - | - | - | - | - | 25.4 |
| Other | 1.5 | 4.4 | 8.6 | 34.6 | - | - | 2.5 |
| All areas | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 137.--REASONS FOR PURCHASING FISH IN AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

| Reasons for purchasing fish in other areas | Number of reasons | | | Percent of reasons | | |
|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Calif. | Oreg. | Wash. |
| Not available locally | 115 | 30 | 40 | 46.0 | 49.2 | 71.4 |
| Cheaper | 39 | 15 | 14 | 15.6 | 24.6 | 25.0 |
| Better quality | 41 | 4 | 1 | 16.4 | 6.6 | 1.8 |
| More uniformity | 5 | - | - | 2.0 | - | - |
| Consumer preference | 44 | 6 | 1 | 17.6 | 9.8 | 1.8 |
| Other | 6 | 6 | - | 2.4 | 9.8 | - |
| Total | 250 | 61 | 56 | 100.0 | 100.0 | 100.0 |

TABLE - 138.--CHANGE IN PURCHASES OF FROZEN FISH PRODUCTS PRODUCED IN AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

| Trends in total sales | Fish wholesalers | | | Frozen food wholesalers | | |
|---|---|---|---|---|---|---|
| | California | Oregon | Washington | California | Oregon | Washington |
| | | | Number | | | |
| Remained same | 35 | 12 | 13 | 22 | 17 | 6 |
| Increased | 29 | 1 | 7 | 39 | 11 | 22 |
| Decreased | 12 | - | - | - | - | - |
| Don't know | 1 | - | 1 | 6 | 6 | - |
| Total | 77 | 13 | 21 | 67 | 34 | 28 |
| | | | Percent | | | |
| Remained same | 45.4 | 92.3 | 61.9 | 32.8 | 50.0 | 21.4 |
| Increased | 37.7 | 7.7 | 33.3 | 58.2 | 32.4 | 78.6 |
| Decreased | 15.6 | - | - | - | - | - |
| Don't know | 1.3 | - | 4.8 | 9.0 | 17.6 | - |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

| Trends in total sales | All wholesalers | | | Total |
|---|---|---|---|---|
| | California | Oregon | Washington | |
| | | Number | | |
| Remained same | 57 | 29 | 19 | 105 |
| Increased | 68 | 12 | 29 | 109 |
| Decreased | 12 | - | - | 12 |
| Don't know | 7 | 6 | 1 | 14 |
| Total | 144 | 47 | 49 | 240 |
| | | Percent | | |
| Remained same | 39.6 | 61.7 | 38.8 | 43.8 |
| Increased | 47.2 | 25.5 | 59.2 | 45.4 |
| Decreased | 8.3 | - | - | 5.0 |
| Don't know | 4.9 | 12.8 | 2.0 | 5.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Includes only those wholesalers purchasing frozen fish products from other areas.

TABLE - 139.--CAPACITY OF SHARP FREEZING EQUIPMENT OWNED OR RENTED BY PACIFIC COAST FISH WHOLESALERS, 1955

| State | Fish wholesalers with sharp freezing equipment | | Capacity in pounds per day |
|---|---|---|---|
| | Number | Percent of fish wholesalers interviewed | |
| California | 53 | 54 | 732,911 |
| Oregon | 19 | 68 | 497,680 |
| Washington | 20 | 42 | 1,766,188 |
| Three states | 92 | 53 | 2,996,779 |

TABLE - 140.--ADEQUACY OF OWNED AND RENTED SHARP FREEZING FACILITIES OF PACIFIC COAST FISH WHOLESALERS, 1955

| Answer | Number of wholesalers | | | | Percent of wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| Yes | 52 | 18 | 13 | 83 | 68 | 95 | 38 | 64 |
| No | 25 | 1 | 21 | 47 | 32 | 5 | 62 | 36 |
| Total | 77 | 19 | 34 | 130 | 100 | 100 | 100 | 100 |

Note: Only wholesalers using sharp freezing equipment answered this question.

TABLE - 141.--CAPACITY OF FROZEN FOOD STORAGE FACILITIES OPERATED BY 146 FISH WHOLESALERS 1/, PACIFIC COAST STATES, 1955

| State | Fish wholesalers with frozen storage space | | |
|---|---|---|---|
| | Number | Percent | Pounds capacity 2/ |
| California | 88 | 92 | 14,402,538 |
| Oregon | 27 | 100 | 20,647,784 |
| Washington | 31 | 65 | 57,142,926 |
| Total | 146 | 85 | 92,193,248 |

1/ Data from frozen food wholesalers was too incomplete to report.

2/ Based upon 87 firms in California, 27 in Oregon, and 16 in Washington. Excludes 16 firms unable to estimate capacity.

TABLE - 142.--ADEQUACY OF AVAILABLE PUBLIC FROZEN PRODUCT STORAGE FACILITIES, PACIFIC COAST STATES, 1955

| Adequacy of public frozen storage | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| Yes | 48 | 15 | 40 | 103 | 67 | 22 | 28 | 117 |
| No | 8 | 12 | 10 | 30 | - | 17 | - | 17 |
| Total | 56 | 27 | 50 | 133 | 67 | 39 | 28 | 134 |
| | | | | Percent | | | | |
| Yes | 85.7 | 55.6 | 80.0 | 77.4 | 100.0 | 56.4 | 100.0 | 87.3 |
| No | 14.3 | 44.4 | 20.0 | 22.6 | - | 43.6 | - | 12.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 143.--STORAGE ROOM TEMPERATURES FOR FROZEN FISH PRODUCTS, PACIFIC COAST STATES, 1955

| Storage temperatures | Number of wholesalers | | | | Percent of wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| More than 10° below 0°F. | 12 | - | 2 | 14 | 7.8 | - | 2.9 | 4.9 |
| -10° to -5°F. | 46 | 22 | 13 | 81 | 30.3 | 35.5 | 18.6 | 28.5 |
| -4.9° to 0°F. | 76 | 34 | 24 | 134 | 50.0 | 54.8 | 34.2 | 47.2 |
| 0.1° to 5°F. | 8 | 6 | 16 | 30 | 5.3 | 9.7 | 22.9 | 10.6 |
| 5.1° to 10°F. | 10 | - | 10 | 20 | 6.6 | - | 14.3 | 7.0 |
| 20.1° to 25°F. | - | - | 4 | 4 | - | - | 5.7 | 1.4 |
| 25.1° to 30°F. | - | - | 1 | 1 | - | - | 1.4 | 0.4 |
| All groups | 152 | 62 | 70 | 284 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Based on 284 wholesalers. Twenty-three wholesalers had no frozen storage.

TABLE - 144.--PRODUCTION CAPACITY OF ICE MAKING EQUIPMENT FISH WHOLESALERS, PACIFIC COAST STATES, 1955

| State | Number with ice making equipment | Percent interviewed with ice equipment | Capacity in pounds per 24 hours | Percent of capacity used | |
|---|---|---|---|---|---|
| | | | | Peak season | Low season |
| California | 66 | 69 | 241,400 | 100 | 73 |
| Oregon | 20 | 74 | 403,800 | 100 | 9 |
| Washington | 22 | 45 | 483,900 | 100 | 17 |
| Three states | 108 | 63 | 1,291,100 | 100 | 23 |

Note: Based on 104 firms reporting capacity.

TABLE - 145.--WHOLESALERS' OPINION ON STORAGE LIFE OF SELECTED FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

| Months | Estimated months product can be stored | | | | |
|---|---|---|---|---|---|
| | Salmon | Halibut | Sole | Rockfishes | Crab |
| | | | Number answering | | |
| 1 to 2 | 30 | 22 | 11 | 4 | 12 |
| 3 to 4 | 23 | 34 | 26 | 29 | 27 |
| 5 to 6 | 15 | 17 | 23 | 27 | 29 |
| 7 to 8 | 6 | 3 | 4 | 6 | 1 |
| 9 to 10 | 5 | 11 | 1 | 4 | 1 |
| 11 to 12 | 21 | 18 | 34 | 19 | 13 |
| More than 12 | - | - | 6 | 1 | - |
| Don't know | 207 | 202 | 202 | 217 | 224 |
| All wholesalers | 307 | 307 | 307 | 307 | 307 |
| | | | Percent answering | | |
| 1 to 2 | 9.8 | 7.2 | 3.6 | 1.3 | 3.9 |
| 3 to 4 | 7.5 | 11.1 | 8.5 | 9.4 | 8.8 |
| 5 to 6 | 4.9 | 5.5 | 7.5 | 8.8 | 9.4 |
| 7 to 8 | 2.0 | 1.0 | 1.3 | 2.0 | 0.3 |
| 9 to 10 | 1.6 | 3.6 | 0.3 | 1.3 | 0.3 |
| 11 to 12 | 6.8 | 5.9 | 11.1 | 6.2 | 4.2 |
| More than 12 | - | - | 2.0 | 0.3 | - |
| Don't know | 67.4 | 65.7 | 65.7 | 70.7 | 73.1 |
| All wholesalers | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Based on 307 wholesalers.

TABIE - 146.--REPORTED SPOILAGE LOSS ON FRESH AND FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

| State and percent of loss | Number of wholesalers | | Percent of wholesalers | |
|---|---|---|---|---|
| | Fresh fish | Frozen packaged | Fresh fish | Frozen packaged |
| California | | | | |
| None | 32 | 120 | 33.7 | 73.6 |
| Less than 1% | 35 | 28 | 36.8 | 17.2 |
| 1% | 11 | 2 | 11.6 | 1.2 |
| 2% or more | 12 | 4 | 12.6 | 2.5 |
| Didn't know or didn't handle | 5 | 9 | 5.3 | 5.5 |
| Total | 95 | 163 | 100.0 | 100.0 |
| Oregon | | | | |
| None | 8 | 52 | 29.6 | 78.8 |
| Less than 1% | 14 | 5 | 51.9 | 7.6 |
| 1% | 4 | 4 | 14.8 | 6.0 |
| 2% or more | - | - | - | - |
| Didn't know or didn't handle | 1 | 5 | 3.7 | 7.6 |
| Total | 27 | 66 | 100.0 | 100.0 |
| Washington | | | | |
| None | 22 | 54 | 44.9 | 70.1 |
| Less than 1% | 20 | 10 | 40.8 | 13.0 |
| 1% | - | - | - | - |
| 2% or more | 7 | 3 | 14.3 | 3.9 |
| Didn't know or didn't handle | - | 10 | - | 13.0 |
| Total | 49 | 77 | 100.0 | 100.0 |

TABLE - 147.--CAUSES OF SPOILAGE LOSSES IN HANDLING FRESH FISH, PACIFIC COAST WHOLESALERS, 1955

| Causes of spoilage losses | Number of reasons | | | | Percent of reasons | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| Improper handling before receiving | 23 | 8 | 14 | 45 | 31.9 | 33.3 | 36.9 | 33.6 |
| Overstocking | 13 | 5 | 4 | 22 | 18.1 | 20.8 | 10.5 | 16.4 |
| Market gluts | 13 | - | 1 | 14 | 18.1 | - | 2.6 | 10.5 |
| Improper handling during transportation | 4 | 6 | 1 | 11 | 5.5 | 25.0 | 2.6 | 8.2 |
| Too old on arrival | 1 | 4 | 6 | 11 | 1.4 | 16.7 | 15.8 | 8.2 |
| Other | 18 | 1 | 12 | 31 | 25.0 | 4.2 | 31.6 | 23.1 |
| Total | 72 | 24 | 38 | 134 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 148.--CAUSES OF SPOILAGE LOSSES ON FROZEN PACKAGED FISH, PACIFIC COAST WHOLESALERS, 1955

| Causes of spoilage | Wholesalers reporting | |
|---|---|---|
| | Number of reasons | Percent of reasons |
| Loss due to overstocking | 13 | 36.1 |
| Improper holding temperature during transportation | 7 | 19.5 |
| Stored too long before receiving | 5 | 13.9 |
| Held too long in storage | 3 | 8.3 |
| Poor quality fish are frozen | 3 | 8.3 |
| Other | 5 | 13.9 |
| All answers | 36 | 100.0 |

TABLE - 149.--RELATIVE IMPORTANCE OF SELECTED SALES OUTLETS FOR FRESH AND FROZEN FISH, PACIFIC COAST STATES, 1955

| Sales outlets | Fresh fish | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| | Percent | Percent | Percent | Percent |
| Retail stores | 39.9 | 38.3 | 21.2 | 36.2 |
| Institutions | 29.1 | 2.7 | 5.7 | 21.1 |
| Other wholesalers | 28.5 | 47.1 | 69.5 | 38.7 |
| Dairy and frozen food | 0.1 | - | 0.1 | 0.1 |
| Other | 2.4 | 11.9 | 3.5 | 3.9 |
| All outlets | 100.0 | 100.0 | 100.0 | 100.0 |
| | Frozen fish | | | |
| | Percent | Percent | Percent | Percent |
| Retail stores | 44.6 | 23.5 | 22.8 | 37.6 |
| Institutions | 27.4 | 39.3 | 5.8 | 21.8 |
| Other wholesalers | 26.9 | 12.9 | 35.4 | 28.7 |
| Dairy and frozen food | - | - | 20.7 | 5.9 |
| Other | 1.1 | 24.3 | 15.3 | 6.0 |
| All outlets | 100.0 | 100.0 | 100.0 | 100.0 |

## Services Offered

TABLE - 150.--WHOLESALERS OFFERING DELIVERY SERVICE ON PRODUCTS SOLD TO OTHER WHOLESALERS, PACIFIC COAST STATES, 1955

| Delivery service | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| Yes | 30 | 13 | 11 | 54 | - | 6 | 6 | 12 |
| No | 46 | 12 | 21 | 79 | 6 | 6 | - | 12 |
| Total | 76 | 25 | 32 | 133 | 6 | 12 | 6 | 24 |
| | | | | Percent | | | | |
| Yes | 39.5 | 52.0 | 34.4 | 40.6 | - | 50.0 | 100.0 | 50.0 |
| No | 60.5 | 48.0 | 65.6 | 59.4 | 100.0 | 50.0 | - | 50.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: 150 wholesalers did not sell to other wholesalers.

TABLE - 151.--WHOLESALERS OFFERING DELIVERY SERVICE ON PRODUCTS SOLD TO RETAIL STORES, PACIFIC COAST STATES, 1955

| Answer | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| | | | | Number | | | | |
| Yes | 64 | 13 | 27 | 104 | 61 | 33 | 28 | 122 |
| No | 10 | 10 | 15 | 35 | 6 | - | - | 6 |
| Total | 74 | 23 | 42 | 139 | 67 | 33 | 28 | 128 |
| | | | | Percent | | | | |
| Yes | 86.5 | 56.5 | 64.3 | 74.8 | 91.0 | 100.0 | 100.0 | 95.3 |
| No | 13.5 | 43.5 | 35.7 | 25.2 | 9.0 | - | - | 4.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Only wholesalers selling to retail stores are included.

TABLE - 152.--RADIUS OF WHOLESALE DELIVERY ROUTES FOR FISHERY PRODUCTS, PACIFIC COAST STATES, 1955

| Distance covered by delivery routes | Fish wholesalers | | | Frozen food wholesalers | | | All wholesalers | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cal. | Oreg. | Wash. | Cal. | Oreg. | Wash. | Cal. | Oreg. | Wash. | Total |
| | | | | Number | | | | | | |
| Local | 8 | 4 | 4 | 6 | 6 | - | 14 | 10 | 4 | 28 |
| To 25 miles | 14 | 4 | 6 | 22 | - | - | 36 | 4 | 6 | 46 |
| To 50 miles | 43 | 4 | 1 | 28 | 6 | 17 | 71 | 10 | 18 | 99 |
| To 100 miles | 4 | - | 1 | 11 | 11 | - | 15 | 11 | 1 | 27 |
| To 150 miles | 4 | - | 4 | - | 6 | 6 | 4 | 6 | 10 | 20 |
| More than 150 miles | 2 | 1 | 11 | - | 6 | 6 | 2 | 7 | 17 | 26 |
| Total | 75 | 13 | 27 | 67 | 35 | 29 | 142 | 48 | 56 | 246 |
| | | | | Percent | | | | | | |
| Local | 10.7 | 30.8 | 14.8 | 9.0 | 17.1 | - | 9.9 | 20.8 | 7.1 | 11.4 |
| To 25 miles | 18.7 | 30.8 | 22.2 | 32.8 | - | - | 25.3 | 8.4 | 10.7 | 18.7 |
| To 50 miles | 57.3 | 30.8 | 3.7 | 41.8 | 17.1 | 58.6 | 50.0 | 20.8 | 32.1 | 40.2 |
| To 100 miles | 5.3 | - | 3.7 | 16.4 | 31.6 | - | 10.6 | 22.9 | 1.8 | 11.0 |
| To 150 miles | 5.3 | - | 14.8 | - | 17.1 | 20.7 | 2.8 | 12.5 | 17.9 | 8.1 |
| More than 150 miles | 2.7 | 7.6 | 40.8 | - | 17.1 | 20.7 | 1.4 | 14.6 | 30.4 | 10.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Based on 246 Pacific Coast wholesalers. Sixty-one wholesalers did not offer delivery service either to retailers or other wholesalers.

TABLE - 153.--FREQUENCY OF DELIVERY OF FISHERY PRODUCTS BY PACIFIC COAST WHOLESALERS OFFERING DELIVERY SERVICE, 1955

| Frequency of delivery | Fresh fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Three states | Calif. | Oreg. | Wash. | Three states |
| | | | | Number | | | | |
| Daily | 65 | 9 | 17 | 91 | 28 | 11 | 17 | 56 |
| Twice weekly | 6 | 4 | 5 | 15 | 22 | 17 | 17 | 56 |
| Weekly | 3 | - | 2 | 5 | 6 | 17 | 11 | 34 |
| Other | - | - | 4 | 4 | 17 | 6 | - | 23 |
| Total | 74 | 13 | 28 | 115 | 73 | 51 | 45 | 169 |
| | | | | Percent | | | | |
| Daily | 87.8 | 69.2 | 60.7 | 79.1 | 38.4 | 21.6 | 37.8 | 33.1 |
| Twice weekly | 8.1 | 30.8 | 17.9 | 13.0 | 30.1 | 33.3 | 37.8 | 33.1 |
| Weekly | 4.1 | - | 7.1 | 4.4 | 8.2 | 33.3 | 24.4 | 20.2 |
| Other | - | - | 14.3 | 3.5 | 23.3 | 11.8 | - | 13.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 154.--TYPE OF REFRIGERATION USED FOR DELIVERY OF FRESH FISH TO RETAILERS, PACIFIC COAST WHOLESALERS, 1955

| Type of refrigeration used | Fresh fish wholesalers | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Three states |
| | | Number | | |
| Insulated truck with ice | 16 | 6 | 9 | 31 |
| Non-insulated truck with ice | 60 | 9 | 28 | 97 |
| Other | 8 | 1 | - | 9 |
| Total | 84 | 16 | 37 | 137 |
| | | Percent | | |
| Insulated truck with ice | 19.0 | 37.5 | 24.3 | 22.6 |
| Non-insulated truck with ice | 71.5 | 56.3 | 75.7 | 70.8 |
| Other | 9.5 | 6.2 | - | 6.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Some wholesalers used both methods depending on the length of the route.

TABLE - 155.--TYPE OF REFRIGERATION USED DURING DELIVERY OF FROZEN PACKAGED FISH, PACIFIC COAST WHOLESALERS, 1955

| Type of refrigeration used during delivery | Fish wholesalers | | | Frozen food wholesalers | | |
|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Calif. | Oreg. | Wash. |
| | | | Number | | | |
| Mechanical refrigeration | 14 | 3 | 7 | 39 | 22 | 17 |
| Dry ice insulated truck | 8 | - | 4 | 6 | - | 6 |
| Dry ice non-insulated truck | 9 | 1 | 1 | - | 6 | - |
| Non-insulated truck, no ice | 39 | 4 | 8 | 6 | 11 | - |
| Insulated truck | 1 | - | - | 6 | - | - |
| Insulated box | - | 4 | 4 | 11 | - | 6 |
| Total | 71 | 12 | 24 | 68 | 39 | 29 |
| | | | Percent | | | |
| Mechanical refrigeration | 19.7 | 25.0 | 29.2 | 57.4 | 56.4 | 58.6 |
| Dry ice insulated truck | 11.3 | - | 16.7 | 8.8 | - | 20.7 |
| Dry ice non-insulated truck | 12.7 | 8.4 | 4.2 | - | 15.4 | - |
| Non-insulated truck, no ice | 54.9 | 33.3 | 33.2 | 8.8 | 28.2 | - |
| Insulated truck | 1.4 | - | - | 8.8 | - | - |
| Insulated box | - | 33.3 | 16.7 | 16.2 | - | 20.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 156.--WHOLESALERS ARRANGING FROZEN PACKAGED FISH PRODUCTS IN THE RETAIL FROZEN FOOD CABINETS, PACIFIC COAST STATES, 1955

| Answer | Fish wholesalers | | | | Frozen packaged wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| Yes | 3 | - | - | 3 | 33 | 28 | 11 | 72 |
| No | 47 | 7 | 25 | 79 | 6 | 6 | 17 | 29 |
| Total | 50 | 7 | 25 | 82 | 39 | 34 | 28 | 101 |
| | | | | Percent | | | | |
| Yes | 6.0 | - | - | 3.7 | 84.6 | 82.4 | 39.3 | 71.3 |
| No | 94.0 | 100.0 | 100.0 | 96.3 | 15.4 | 17.6 | 60.7 | 28.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: The remaining wholesalers either did not sell to retail stores or did not handle any frozen packaged fish products.

TABLE - 157.--FISH WHOLESALERS FURNISHING ICE TO RETAILERS WITHOUT CHARGE, PACIFIC COAST STATES, 1955

| Answer | Fish wholesalers furnishing ice | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| | | Number | | |
| Yes | 36 | 18 | 26 | 80 |
| No | 43 | 2 | 14 | 59 |
| Total | 79 | 20 | 40 | 139 |
| | | Percent | | |
| Yes | 45.6 | 90.0 | 65.0 | 57.6 |
| No | 54.4 | 10.0 | 35.0 | 42.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 158.--WHOLESALERS UNDERTAKING EDUCATIONAL WORK WITH RETAILERS, PACIFIC COAST STATES, 1955

| Answers | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| Yes | 18 | 8 | 13 | 39 | 6 | 6 | - | 12 |
| No | 71 | 9 | 28 | 108 | 56 | 28 | 28 | 112 |
| Total | 89 | 17 | 41 | 147 | 62 | 34 | 28 | 124 |
| | | | | Percent | | | | |
| Yes | 20.2 | 47.1 | 31.7 | 26.5 | 9.7 | 17.6 | - | 9.7 |
| No | 79.8 | 52.9 | 68.3 | 73.5 | 90.3 | 82.4 | 100.0 | 90.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Note: Total does not equal total number in survey because some wholesalers did not sell to retailers.

TABLE - 159.--PACIFIC COAST WHOLESALERS ADVERTISING FISH IN 1955

| Answers | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| Yes | 70 | 14 | 40 | 124 | 11 | 17 | 22 | 50 |
| No | 28 | 16 | 8 | 52 | 56 | 22 | 6 | 84 |
| Total | 98 | 30 | 48 | 176 | 67 | 39 | 28 | 134 |
| | | | | Percent | | | | |
| Yes | 71.4 | 46.7 | 83.3 | 70.5 | 16.4 | 43.6 | 78.6 | 37.3 |
| No | 28.6 | 53.3 | 16.7 | 29.5 | 83.6 | 56.4 | 21.4 | 62.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 160.--PERCENT OF GROSS SALES SPENT FOR ADVERTISING BY SIZE GROUPS, PACIFIC COAST WHOLESALERS, 1955

| Size groups | Total gross | Advertising expenditure | Percent of gross spent |
|---|---|---|---|
| Less than $50,000 | $937,440 | $13,887 | 1.48 |
| 50- 99 | 2,534,017 | 12,171 | 0.48 |
| 100- 199 | 4,081,605 | 4,166 | 0.10 |
| 200- 299 | 4,439,332 | 11,397 | 0.26 |
| 300- 399 | 5,423,280 | 5,483 | 0.10 |
| 400- 499 | 7,641,836 | 23,050 | 0.30 |
| 500- 999 | 14,872,442 | 35,903 | 0.24 |
| 1000-3999 | 43,336,185 | 85,823 | 0.20 |
| 4000 or more | 48,780,683 | 63,000 | 0.13 |
| Unclassified | Refused or didn't know | 34,083 | - |
| Total | $132,046,820 | $288,963 | 0.22 |

Note: 51 wholesalers in California, Oregon, and Washington refused to give information on advertising expenditures or gross sales.

TABLE - 161.--ADVERTISING BUDGET PLANS OF PACIFIC COAST WHOLESALERS FOR 1956 COMPARED WITH 1955

| Advertising budget plans | Number of wholesalers answering | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| | | Number | | |
| More | 27 | 15 | 11 | 53 |
| Less | 8 | - | 6 | 14 |
| About the same | 59 | 51 | 52 | 162 |
| Don't know | 10 | - | 7 | 17 |
| Total | 104 | 66 | 76 | 246 |
| | | Percent | | |
| More | 26.0 | 22.7 | 14.5 | 21.5 |
| Less | 7.7 | - | 7.9 | 5.7 |
| About the same | 56.7 | 77.3 | 68.4 | 65.9 |
| Don't know | 9.6 | - | 9.2 | 6.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 162.--NEW FROZEN PACKAGED FISHERY PRODUCTS HANDLED BY WHOLESALERS, PACIFIC COAST STATES, 1955

| New products handled | Wholesalers selling new products | | | |
|---|---|---|---|---|
| | California | Oregon | Washington | Total |
| | | Number | | |
| None | 26 | 32 | 16 | 74 |
| Fishsticks | 79 | 22 | 25 | 126 |
| Breaded scallops | 31 | 11 | 5 | 47 |
| Tuna pies | 22 | 17 | 4 | 43 |
| Fish soups | 23 | 6 | 5 | 34 |
| Breaded oysters | 17 | 6 | 6 | 29 |
| Frozen fish dinners | 10 | 13 | 4 | 27 |
| Lobster tails | 7 | - | - | 7 |
| Other | 40 | 18 | 3 | 61 |
| | | Percent | | |
| None | 15.8 | 48.5 | 20.8 | 24.1 |
| Fishsticks | 48.2 | 33.3 | 32.5 | 41.0 |
| Breaded scallops | 18.9 | 16.7 | 6.5 | 15.3 |
| Tuna pies | 13.4 | 25.8 | 5.2 | 14.0 |
| Fish soups | 14.0 | 9.1 | 6.5 | 11.1 |
| Breaded oysters | 10.4 | 9.1 | 7.8 | 9.4 |
| Frozen fish dinners | 6.1 | 19.7 | 5.2 | 8.8 |
| Lobster tails | 4.2 | - | - | 2.3 |
| Other | 24.4 | 27.3 | 3.9 | 19.9 |

## Wholesaler Suggestions

TABLE - 163.--WHOLESALER PREFERENCE FOR FEDERAL GRADES AND STANDARDS FOR FISHERY PRODUCTS, PACIFIC COAST STATES, 1955

| Preference | Number | | | | Percent | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Fresh fish | | | | |
| Yes | 56 | 9 | 29 | 94 | 58.4 | 34.7 | 60.4 | 55.3 |
| No | 32 | 16 | 13 | 61 | 33.3 | 61.5 | 27.1 | 35.9 |
| Don't know | 8 | 1 | 6 | 15 | 8.3 | 3.8 | 12.5 | 8.8 |
| Total | 96 | 26 | 48 | 170 | 100.0 | 100.0 | 100.0 | 100.0 |
| | | | | Frozen packaged fish | | | | |
| Yes | 139 | 38 | 51 | 228 | 84.2 | 56.7 | 66.2 | 73.8 |
| No | 14 | 15 | 18 | 47 | 8.5 | 22.4 | 23.4 | 15.2 |
| Don't know | 12 | 14 | 8 | 34 | 7.3 | 20.9 | 10.4 | 11.0 |
| Total | 165 | 67 | 77 | 309 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 164.--OPINIONS OF WHOLESALERS CONCERNING PORTION CONTROL OF FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

| Opinion | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| Yes | 22 | 1 | 17 | 40 | 28 | 11 | 11 | 50 |
| No | 49 | 13 | 20 | 82 | 22 | 28 | 6 | 56 |
| Don't know | 27 | 13 | 11 | 51 | 17 | - | 11 | 28 |
| Total | 98 | 27 | 48 | 173 | 67 | 39 | 28 | 134 |
| | | | | Percent | | | | |
| Yes | 22.4 | 3.7 | 35.4 | 23.1 | 41.8 | 28.2 | 39.3 | 37.3 |
| No | 50.0 | 48.1 | 41.7 | 47.4 | 32.8 | 71.8 | 21.4 | 41.8 |
| Don't know | 27.6 | 48.2 | 22.9 | 29.5 | 25.4 | - | 39.3 | 20.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

TABLE - 165.--FACTORS HAVING GREATEST INFLUENCE ON RETAIL SALES OF FISH IN PACIFIC COAST STATES, 1955

| Factors | Percent of answers | | |
|---|---|---|---|
| | First choice | Second choice | Third choice |
| Quality | 41.9 | 30.5 | 13.3 |
| Price of fish | 17.9 | 30.5 | 25.1 |
| Type of store display | 10.6 | 4.4 | 19.4 |

TABLE - 166.--SUGGESTED NUMBER OF PORTIONS PER PACKAGE, 90 PACIFIC COAST WHOLESALERS, 1955

| Number of portions | Fish wholesalers | | | | Frozen food wholesalers | | | |
|---|---|---|---|---|---|---|---|---|
| | Calif. | Oreg. | Wash. | Total | Calif. | Oreg. | Wash. | Total |
| | | | | Number | | | | |
| 2 | - | - | - | - | 6 | - | - | 6 |
| 3 | 5 | - | 4 | 9 | - | - | - | - |
| 4 | 7 | 1 | 1 | 9 | 17 | - | 6 | 23 |
| 5 | - | - | 5 | 5 | - | - | - | - |
| 6 | - | - | 1 | 1 | - | - | - | - |
| 7 | - | - | - | - | - | - | - | - |
| 8 | - | - | 1 | 1 | - | - | - | - |
| 9 | - | - | - | - | - | - | - | - |
| 10 | - | - | - | - | - | 6 | - | 6 |
| Don't know | 5 | - | 7 | 12 | 6 | 6 | 6 | 18 |
| Total | 17 | 1 | 19 | 37 | 29 | 12 | 12 | 53 |
| | | | | Percent | | | | |
| 2 | - | - | - | - | 20.7 | - | - | 11.3 |
| 3 | 29.4 | - | 21.1 | 24.3 | - | - | - | - |
| 4 | 41.2 | 100.0 | 5.3 | 24.3 | 58.6 | - | 50.0 | 43.4 |
| 5 | - | - | 26.3 | 13.5 | - | - | - | - |
| 6 | - | - | 5.3 | 2.7 | - | - | - | - |
| 7 | - | - | - | - | - | - | - | - |
| 8 | - | - | 5.3 | 2.7 | - | - | - | - |
| 9 | - | - | - | - | - | - | - | - |
| 10 | - | - | - | - | - | 50.0 | - | 11.3 |
| Don't know | 29.4 | - | 36.7 | 32.5 | 20.7 | 50.0 | 50.0 | 34.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

# Appendix A

## General procedure and sample design for selecting consumer, retailer, and wholesaler units included in the survey

# PROCEDURE AND SAMPLE DESIGN

## General Procedure

After initial orientation, personnel assigned to this study visited numerous fish wholesalers in Oregon, Washington, and California for the purpose of getting background information and to inform the wholesalers about the study. Later, formal meetings were held with official industry groups in Seattle, Portland, and San Francisco. At the suggestion of the College, each of these groups set up an advisory committee to work with the College and to encourage industry support for the study.

Oregon State College personnel met with the members of the advisory committees, as well as other wholesalers suggested by committee members, to learn more specifically of the problems confronting the industry and to get suggestions on questions the industry desired answered.

Following the meeting with the industry groups, preliminary questionnaires were developed (consumer, retail, and wholesale). These questionnaires were then checked with members of the industry advisory committees for corrections and suggestions. The questionnaires were then sent to the Fish and Wildlife Service and the Bureau of the Budget for approval. Permission to pretest was granted and the questionnaires were pretested, revised, and returned to the Bureau of the Budget (via the Fish and Wildlife Service) for final approval. Final approval for conducting the field surveys was granted and the field work started about February 1, 1956. The field work was completed about August 1, 1956.

## Sample Design

### Household survey

The primary sampling units and blocks for the household survey were selected by the Market Research Corporation of America as follows:

1. The three West Coast states (Washington, Oregon, and California) were stratified by city size and geographic area. The three city sizes were rural (under 2,500), urban (2,500-50,000) and Standard Metropolitan Area (SMA) which included all the area in the counties designated by the Bureau of the Census. The sample areas are shown in appendix table 1.

2. Using the above stratification and 1950 census statistics and supplementary information as indicated below, a sample of 668 blocks was selected with known probabilities using multi-stage sampling procedures. The primary sampling units (p.s.u.'s) were selected within each stratum with probabilities proportionate to size (p.p.s.). These p.s.u.'s consisted of whole SMA's, individual cities or towns in the urban city size, and rural portions of non-SMA counties. Sampling within each selected p.s.u. was as described in the following paragraphs.

3. In all p.s.u.'s, a minimum of four blocks was selected in each selected city, town, or minor civil division (m.c.d.). Measures of block size were provided by Market Research Corporation of America (MRCA) for each selected block. By using the intra-block sampling fractions, a three-state sample of households was selected with equal probabilities, and hence a self-weighting sample of households was obtained.

4. In the block-city portion of the SMA's, block cities were selected with probabilities proportionate to size. A listing of these selected block cities, together with their measures of size, was provided by Market Research Corporation. Within each selected block city, blocks were selected with probabilities proportionate to size, using systematic sampling with a random start. A minimum block size of ten census households was established, combining small blocks (including zero blocks) with adjacent larger ones in an unbiased manner. A listing of selected blocks by tract and block number, together with their respective measures of size, and one copy of a reproduction of the census block map with the selected blocks indicated thereon were provided by Market Research Corporation.

5. In the non-block area portion of the SMA's, minor civil divisions (m.c.d.'s) were selected with p.p.s. A list of selected m.c.d.'s was provided together with measures of size. Within each selected m.c.d., four blocks (or small areas) were selected with p.p.s. where count units were available on county maps and with equal probabilities where they were not. One copy of a map or map reproduction was provided by Market Research Corporation for each selected m.c.d. on which the selected blocks were indicated.

6. In the urban city size, cities or towns were selected with p.p.s., and a listing of selected cities or towns was provided together with their measures of size. Within each selected city or town, four blocks were selected with equal probabilities. A map or map reproduction was provided for each selected town or city on which the selected blocks were indicated.

7. In the rural city size, within each selected county, a m.c.d. was selected with p.p.s. and with replacement for each group of four blocks. A listing of selected m.c.d.'s together with their measures of size, was provided. Within each selected m.c.d., four blocks or small areas were selected with p.p.s. where count units were available on county maps and with equal probabilities where they were not. A map of selected m.c.d.'s was provided on which was indicated the selected blocks or areas.

8. The sample allocation was approximately as outlined in appendix table 2.

9. The households within the blocks were selected as follows:

a. From the measures of block size provided by MRCA under 3 above, a sampling rate was calculated so as to give an expected total number of households of 2,001 or an average number of three households per block.

b. A cruise by car was made in each block to count the number of households. This number was multiplied by the sampling rate to give a calculated number of households to sample. If the calculated number of households in a block was six or less, this was the sample number.

c. If the calculated number was greater than six, only six households were sampled. The total number of households in a block was divided by the sample number to give a sampling interval for the block. Numbering the households along a pre-designated route, a random start plus the sampling interval was used to select the sample households.

d. To give a self-weighting sample, the sample households were duplicated sufficiently to arrive at the calculated number of households for each block. Where only a portion of the sample households needed to be duplicated, these were selected randomly.

A total of 1,883 interviews was completed. Unsuccessful attempts were made to contact 129 additional not-at-home households. As the sample was drawn proportionate to population, a high percent of the interviews was taken in the coastal areas where the population of these states is concentrated.

In duplicating selected records to give a self-weighting sample (as described in 9d above), 221 additional questionnaires were added to the study, for a total of 2,064. Throughout the study, reference to the number of households includes the duplicated questionnaires. Of the 2,064 households included in the analysis, 1,544 were from California, 337 were from Washington, and 183 from Oregon.

The field survey work in Oregon and in the rural and nonblock areas of Washington and California was completed by Oregon State College personnel. In Seattle, San Francisco, and Los Angeles professional interviewers were hired to do a substantial part of the field work, under the supervision of a staff member from Oregon State College.

Appendix Table 1. Sample areas

| State | County or Standard Metropolitan Area (or block cities) | | |
|---|---|---|---|
| Washington | Clallam | Kitsap | Pacific |
| | Grays Harbor | Mason | Wahkiakum |
| | Jefferson | | |
| | Cowlitz | Skagit | Thurston |
| | Lewis | Skamania | Whatcom |
| | San Juan Islands | Snohomish | |
| | Asotin | Franklin | Okanogan |
| | Chelan | Garfield | Pend Oreille |
| | Columbia | Grant | Stevens |
| | Benton | Kittitas | Walla Walla |
| | Adams | Klickitat | Whitman |
| | Douglas | Lincoln | Yakima |
| | Ferry | | |
| | Seattle SMA | | |
| | Spokane SMA | | |
| | Tacoma SMA | | |
| | Portland SMA - Clark Co. | | |
| Oregon | Columbia | Curry | Clatsop |
| | Coos | Lincoln | Tillamook |
| | Benton | Lane | Polk |
| | Douglas | Linn | Yamhill |
| | Jackson | Marion | Hood River |
| | Josephine | | |
| | Baker | Jefferson | Umatilla |
| | Crook | Klamath | Union |
| | Deschutes | Lake | Wallowa |
| | Gilliam | Malheur | Wasco |
| | Grant | Morrow | Wheeler |
| | Harney | Sherman | |
| | Portland SMA | | |
| California | Del Norte | Lake | Napa |
| | Humboldt | Mendocino | Sonoma |
| | Monterey | San Luis Obispo | Santa Cruz |
| | San Benito | Santa Barbara | Ventura |

Appendix Table 1 (cont'd)

| State | County or Standard Metropolitan Area (or block cities) | | |
|---|---|---|---|
| California (cont'd) | Butte | Sutter | Yolo |
| | Colusa | Tehama | Yuba |
| | Glenn | | |
| | Merced | Stanislaus | |
| | Kern | Madera | Tulare |
| | Kings | | |
| | Alpine | Mono | Shasta |
| | Amador | Modoc | Sierra |
| | El Dorado | Nevada | Siskiyou |
| | Imperial | Placer | Trinity |
| | Inyo | Plumas | Tuolumne |
| | Lassen | Riverside | Calaveras |
| | Mariposa | | |
| | Fresno SMA | | |
| | Sacramento SMA | | |
| | San Bernardino SMA | | |
| | San Diego SMA | | |
| | San Jose SMA | | |
| | Stockton SMA | | |
| | San Francisco-Oakland SMA (including all non-block area and San Francisco City) | | |
| | Alameda City (in San Francisco-Oakland SMA) | | |
| | Berkeley City (in San Francisco-Oakland SMA) | | |
| | Oakland City (in San Francisco-Oakland SMA) | | |
| | Richland City (in San Francisco-Oakland SMA) | | |
| | Los Angeles SMA (including all non-block area and Los Angeles City) | | |
| | Alhambra City (in Los Angeles SMA) | | |
| | Burbank City (in Los Angeles SMA) | | |
| | Glendale City (in Los Angeles SMA) | | |
| | Long Beach City (in Los Angeles SMA) | | |
| | Pasadena City (in Los Angeles SMA) | | |
| | Santa Monica City (in Los Angeles SMA) | | |

Appendix Table 2. Sample allocation

| State | City size | Geographic stratum | Census households | Expected p.s.u.'s | Expected blocks | Expected sample households |
|---|---|---|---|---|---|---|
| Wash. | Under 2,500 | 1 | 34,544 | 1 | 4 | 12 |
| | | 2 | 67,319 | 1 | 12 | 36 |
| | | 3 | 79,128 | 1 | 12 | 36 |
| | 2,500-50,000 | 1 | 29,159 | 1 | 4 | 12 |
| | | 2 | 54,335 | 2 | 8 | 24 |
| | | 3 | 61,304 | 2 | 8 | 24 |
| | SMA--Seattle | | 234,258 | 2 | 34 | 102 |
| | Spokane | | 68,949 | 1 | 10 | 30 |
| | Tacoma | | 78,850 | 1 | 12 | 36 |
| | Portland | | 25,900 | 1 | 4 | 12 |
| | STATE TOTAL | | 733,746 | 13 | 108 | 324 |
| Oreg. | Under 2,500 | 4 | 30,597 | 1 | 4 | 12 |
| | | 5 | 96,690 | 4 | 16 | 48 |
| | | 6 | 40,709 | 1 | 4 | 12 |
| | 2,500-50,000 | 4 | 14,011 | 1 | 4 | 12 |
| | | 5 | 61,847 | 2 | 8 | 24 |
| | | 6 | 31,047 | 1 | 4 | 12 |
| | SMA--Portland | | 204,146 | 1 | 30 | 90 |
| | STATE TOTAL | | 479,047 | 11 | 70 | 210 |
| Calif. | Under 2,500 | 7 | 54,679 | 2 | 8 | 24 |
| | | 8 | 55,070 | 2 | 8 | 24 |
| | | 9 | 134,132 | 5 | 20 | 60 |
| | | 10 | 88,647 | 3 | 12 | 36 |
| | 2,500-50,000 | 7 | 30,709 | 1 | 4 | 12 |
| | | 8 | 88,574 | 3 | 12 | 36 |
| | | 9 | 116,181 | 4 | 16 | 48 |
| | | 10 | 57,586 | 2 | 8 | 24 |
| | SMA--Fresno | | 80,283 | 1 | 12 | 36 |
| | Los Angeles | | 1,440,451 | 1 | 212 | 636 |
| | Sacramento | | 82,728 | 1 | 13 | 39 |
| | San Bernardino | | 85,631 | 1 | 13 | 39 |
| | San Diego | | 169,010 | 1 | 25 | 75 |
| | San Fran-Oklnd | | 706,297 | 1 | 104 | 312 |
| | San Jose | | 85,424 | 1 | 13 | 39 |
| | Stockton | | 58,004 | 1 | 9 | 27 |
| | STATE TOTAL | | 3,333,406 | 30 | 489 | 1,467 |
| GRAND TOTAL | | | 4,546,199 | 54 | 667 | 2,001 |

## Retail survey

The sample design for the retail survey was worked out in cooperation with the Bureau of Old Age and Survivors Insurance of the United States Department of Health, Education, and Welfare as follows:

1. The BOASI supplied Oregon State College with a list of all retail stores in industry groups 541 (grocery stores) and 542 (meat and fish markets) for California, Oregon, and Washington. The listing included a stratification by county, industry groups, and number of employees. The employee sizes were the same as those used in County Business Patterns (United States Department of Commerce), and were the number of employees for which social security funds were collected in the first quarter of 1953.

2. Upon receiving this listing, Oregon State College selected the counties to be sampled (the same counties as used in the consumer survey), determined the sampling rates, and drew a systematic interval sample, using a random start in each stratum. A total of 440 stores were selected to give an allowance for stores not handling fish.

3. The sampling rate for each size classification was increased with increasing size of store. A sampling rate of 1.7 percent was used for stores with less than four employees. For stores with 4 to 19 employees the sampling rate was 2.2 percent, and for stores with 20 or more employees, was 7.1 percent. Within each size classification the sample rate was constant across all strata.

4. As part of the 440 selected stores did not handle fish, the sample number was adjusted to yield the desired number of stores for all strata by using a uniformly lower sampling rate.

5. After the stores to be sampled were selected, they were sent to the Bureau of Old Age and Survivors Insurance which in turn supplied Oregon State College with a list of names and addresses for the sample stores.

A total of 260 retail stores was surveyed in the study. As different sampling rates were used for different sized stores, the field records were duplicated at varying rates to give a self-weighting sample. Thus in the analysis a total of 904 stores were used.

The retail questionnaires were taken by employees of Oregon State College, except for the medium and small stores in the Los Angeles metropolitan area. Mrs. Hazel Dugdale and Associates of Inglewood, California, were hired to complete part of the retail survey in that area. This same firm also worked on the consumer phase of the study.

## Wholesale survey

The wholesalers selling fish to retailers and institutional outlets in the three Pacific Coast states fell into two general groups: (a) wholesalers handling fresh, frozen and frozen packaged fish exclusively;

and (b) wholesalers handling frozen packaged fish along with other kinds of frozen food. Such wholesalers included frozen food companies, dairies, ice companies, and wholesale groceries.

As complete lists as possible were assembled for each of the two classes of wholesalers. In assembling these lists, contact was made with the United States Fish and Wildlife field offices in Seattle and San Pedro, the State Fish Commissions in Washington and Oregon, the trade associations in Seattle, Portland, and northern California, leading fish and frozen food brokers, and numerous individual wholesalers in the three states.

Information on the size of business as measured by the average number of employees was obtained for the fish wholesalers, but such information was not readily available on the frozen food wholesalers.

It was estimated after contacting numerous members of the trade, that about 30 percent of the total fish sales to retail stores and institutions on the West Coast was handled by frozen food wholesalers. On the basis of this estimate it was decided that about two-thirds of the wholesalers to be interviewed should be fish wholesalers and the other one-third frozen food wholesalers.

A uniform sampling rate of 18 percent was used across all states, areas, and size groups for the frozen food wholesalers.

For the fish wholesalers the sampling rate varied by size groups, but was kept uniform across states and areas. A sampling rate of 24 percent was used for wholesalers with less than 10 employees. For wholesalers with 10 to 39 employees the sampling rate was 76 percent, and for wholesalers with 40 or more employees, 100 percent.

All of the wholesaler interviews were conducted by Oregon State College staff members. A total of 97 interviews was completed. To give a self-weighting sample, for purposes of analysis, the completed questionnaires were duplicated at appropriate rates, to represent 100 percent of the wholesalers in the Pacific Coast states. A total of 307 wholesaler records was used in the analysis. One hundred and sixty-five of these were from California, 64 were from Oregon and 78 were from Washington.

Since all of the wholesaler interviews were taken by Oregon State College personnel under proper supervision, no written instructions to interviewers were issued and none are shown following.

Appendix B

Instructions for interviewers
and specimen survey questionnaires

# INSTRUCTIONS FOR INTERVIEWER
# FOR
# CONSUMER SURVEY

I. Purpose:

The purpose of this survey of consumers is:

1. to obtain information about consumer preferences and frequency of purchase for Pacific Coast species of fish and shellfish,

2. to obtain opinions as to quality, type of packages preferred, availability, and

3. to locate consumer dissatisfactions with fish and shellfish products. It is hoped the findings of this study will enable the fisheries industry to supply the consumer with a better product. In order to get a representative picture of the consumer market, a total of 2,000 households in Oregon, Washington, and California will be interviewed.

II. Background Material for Interviewers

Some background material will be necessary for you to be able to answer consumer questions and interpret their answers. The following information will be helpful to you.

A. Market terms to know.

1. General

Fresh fish and shellfish - fish or shellfish bought in the fresh form is any whole, steaked, filleted or packaged fish or shellfish that is not frozen, cured, or canned.

Frozen fish and shellfish - fish and shellfish that are bought frozen, usually in packaged form by consumers.

Cured fish - any form of smoked, kippered, salted, or pickled fish. The more important kinds sold are salmon, sablefish, herring, and cod.

2. Market forms of fresh fish.

Whole or round - those fish marketed just as they come from the water.

Dravn - those fish marketed with only their entrails removed.

Dressed - those fish marketed with their entrails removed, and with head, tail, and fins cut off.

Steaks - steaks are cross section slices of the larger sizes of dressed fish. The slices usually are about 3/4 of an inch thick. Salmon and halibut steaks are the most common ones sold.

Fillets - fillets are pieces of flesh removed from the side of the fish. This piece of flesh contains most of the meat on the side of a fish from the head to the tail. Sole, cod, rockfish, perch, and flounder are ordinarily marketed in this form. Sometimes salmon and halibut are sold in this form.

Butterfly fillets - butterfly fillets are the two sides of the fish corresponding to two single fillets, but held together by the uncut flesh and skin of the belly.

Fish sticks - fish sticks are pieces of fish cut lengthwise or crosswise from fillets into portions of uniform width and length. These portions or sticks are usually about 1 inch wide and 3 inches long. Fish sticks are sold in frozen packaged form and are breaded and precooked.

3. Market forms of shellfish.

Whole or in shell - fresh shellfish bought in the shell should be alive. Crabs, lobsters, clams, and oysters may be bought this way. Crabs and lobsters may be bought cooked in the shell.

Shucked - shucking is the process of removing the shellfish meat from the shell. The meat is sold free from the shell.

Cooked meat - the edible portion of crab, lobster, and shrimp which is picked from the cooked shellfish.

4. Other terms.

Pre-cooked - fish or shellfish that has been cooked before purchase.

Breaded - fish and shellfish which have been dipped in a batter consisting of flour, milk, eggs, bread crumbs, corn meal, etc. When cooked, breaded fish has a crisp brown crust.

B. Species of fish and shellfish.

Following is a list of fish and shellfish that you may find consumers mentioning. Become familiar enough with the lists so you will be able to distinguish between fish and shellfish.

| Fish | Shellfish |
|---|---|
| Salmon | Crab |
| Halibut | Shrimp |
| Sole | Lobster |
| Rockfishes | Oysters |
| Tuna | Clams |
| Cod | Scallops |
| Perch | Abalone |
| Flounder | |
| Mackerel | |
| Barracuda | |
| Sea Bass | |
| Herring | |
| Swordfish | |

Many species of fish have several common names. This may prove somewhat confusing to you when interviewing. The names listed above are the ones most commonly used.

In the case of rockfish, there are about 50 different species on the Pacific Coast. You may find the respondents mentioning the following names which should be considered as rockfish.

Rock Cod
Red Cod
Snapper or Red Snapper - (one of the most common)
Striped Bass - (this is a different species than Sea Bass)

In California you may hear consumers refer to a fish called California Halibut. This fish is not a true halibut, but should be classified as such in this study.

C. Food value of fishery products.

Fishery products are excellent sources of highly digestible protein. In addition many contain fat, minerals, and vitamins. Fish and shellfish can be included in the diet with full confidence that they supply high quality food. Practically all fish contain the same nutritional properties. Fish are comparable to beef in total food value per pound.

## III. Method of Collection

The data will be collected by personal interview. You will be furnished with a map or diagram of the district where you will work. Some of the districts cover only one city block and are usually regular in shape, other districts cover several city blocks and some of them may be irregular in shape. The rural districts frequently include rather extensive areas.

After locating the district assigned to you, follow the steps in the sample procedure given below for determining the households to be interviewed.

A household, as defined by the Bureau of the Census, includes all the persons who occupy a house, an apartment or other group of rooms, or a room, that constitutes a dwelling unit. In general, a group of rooms occupied as separate living quarters is a dwelling unit if it has separate cooking equipment or a separate entrance; a single room occupied as separate living quarters is a dwelling unit if it has separate cooking equipment or if it constitutes the only living quarters in the structure. A household includes the related family members and also the unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the dwelling unit. A person living alone in a dwelling unit or a group of unrelated persons sharing the same dwelling unit as partners is also counted as a household.

A. Sampling Procedure

The following procedure should be used in selecting the households to be interviewed:

1. Count the total number of households in the district by driving or walking through the area. You may start at any point; however, it is imperative that you count all households, including all standard households, all apartments, single and multiple room dwellings, and all small dwellings which may be set back from the street, face an alley, or which may be located behind other houses.

2. Decide upon the starting place and the exact route which you will follow in selecting the households to be interviewed. The predetermined route must also be decided upon in any apartment houses located in the district. The starting point or the route to be followed is not important as long as it is determined before selecting the first household.

3. Divide the number of households counted (in number 1, above) by the sampling rate given to you by your supervisor. The sampling rate may not be the same for every district. This will give you the approximate number of households to be interviewed providing your answer is 6 or less. If your answer is 6 or less, follow the instuctions in paragraph (a) below. If your answer is more than 6, follow instructions in paragraph (b) below.

   (a) Select the number of the first household to be interviewed along the predetermined route by using the random numbers given to you by your supervisor. The second household will be determined by adding the sampling rate to the number of the first household. The third household will be determined by adding the sampling rate to the number of the second household. This procedure is followed until you reach the end of your predetermined route at which

time you should have interviewed or contacted for interview, the number of households called for in your answer in 3, above, or in some instances one additional household. For refusals and people not at home see instructions which are given later.

(b) If the answer you obtained, in 3, above, is more than 6, divide the total number of households in your district by 6, and round to the nearest whole number. The answer you get will be the sampling rate for this district. If this new sampling rate differs from the one given on the block listings of consumer households, the number of the first household to be interviewed will also change. In this situation determine the number of the first household to be interviewed by using the table of random numbers supplied to you. The number of the 2nd. household will be determined by adding the sampling rate to the number of the first household. Likewise, the 3rd. household will be determined by adding the sampling rate to the number of the 2nd. household--etc. The total number of households interviewed in the districts where this procedure is used will always be six.

In using the table of random numbers, start at the left hand side and read down the columns. As a random number is used in selecting a household to be interviewed, strike it off the list. The next random number in the sequence will be used in determining the first household to be interviewed in the next district where you may be working. If a number on the random table exceeds the total of the households in the district, disregard it and proceed to the next random number. The disregarded numbers should be marked off the list and not used at all. All numbers will be taken in sequence. You should never go back to an unused number. Several tables of random numbers will be given to you. Be sure to use the one which corresponds to the sampling rate for the district.

B. Refusals

In the event that a consumer refuses to participate in the survey, write the address on the form given to you for this purpose and turn it in to your supervisor. After a refusal, go to the next household to get a replacement for the refusal. For example, if the refusal was number 17, go to 18 to get the replacement. If 17 and 18 both refuse, go to 19 and so on until you get the replacement. To get the number of the next household to interview, after an alternate household has been interviewed, add the sampling rate to the

number of the first household that refused, which in this case was number 17.

C. Consumers not at Home

When no one is at home at a designated household the first time you try to get an interview, call on a neighbor to see if you can find out when the consumer in question will be home and then make your return call accordingly. If you get no information from the neighbor, you might make additional calls the same day while you are in the neighborhood. If you leave the neighborhood and haven't been able to contact the consumer in question, make 2 more calls on 2 different days or evenings. If after this time you cannot contact the consumer write down the address and the name of the consumer, if you can get it, and turn it in to your supervisor.

D. Spot checks will be made by your supervisor to insure that the proper households are interviewed and that all questions on the questionnaire have been asked.

E. Example

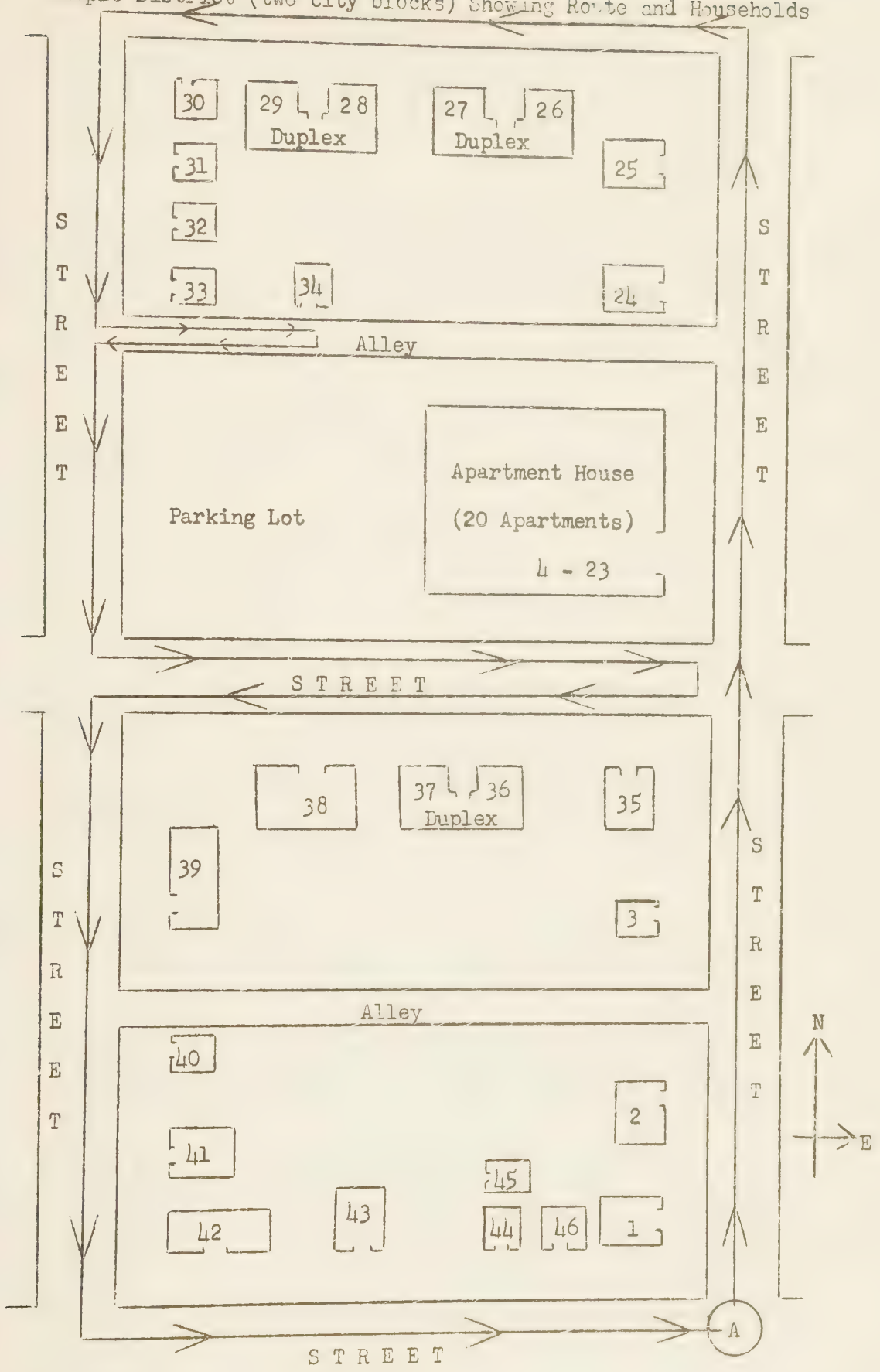
To illustrate the foregoing instructions, a diagram of a sample district and the details for determining the individual households to be interviewed is given below.

By walking around the entire area shown in the diagram the enumerator counts 46 households. Included in this total are 20 individual households, one of which faces an alley and another which is located behind a house that faces the street. There are 6 households in the three duplexes, and 20 units in the apartment building.

Prior to selecting the households to be interviewed, the enumerator decides that the starting point will be at point "A" (lower right hand corner) and the route to be followed will be that indicated by the arrows. The sampling rate given him is 10. The total number of households divided by the sampling rate gives 4 as the estimated number of interviews to be taken in the district, $(\frac{46}{10} = 4.6)$.

From a table of random numbers, it is determined that the number of the first household to be interviewed is 8. An interview is completed at this household. The next household to be interviewed, number 18(8 + 10), is not at home. The enumerator obtains information from a neighbor in apartment 19 as to the most likely time to contact the household in question and proceeds to the third interview which is household 28(18 + 10). The enumerator is refused at 28 so he goes to 29 where he also is refused, but an interview is completed at 30.

Sample District (two city blocks) Showing Route and Households



The number of the next, or fourth, household is determined by adding the sampling rate to the number of the first refusal (28 + 10 = 38). An interview is obtained here which completes the required number for this district with the exception of household number 18, which was not at home. The enumerator calls back the next evening and completes the interview at number 18.

If the random number, or first household interviewed in this illustration had been 6 or under, 5 rather than 4 households would have been interviewed. For example, with a random number of 5, the households interviewed would have been 5, 15, 25, 35 and 45.

IV. Materials for Survey

The following material will be needed:

1. A supply of questionnaires
2. A copy of instructions for interviewers and sampling procedure.
3. Tables of random numbers
4. Clipboard or something on which to write
5. Pencils
6. Maps

V. The Interview

After introducing yourself to the housewife, tell her that you are representing Oregon State College which is doing a survey for the United States Fish and Wildlife Service. Tell her that we are conducting personal interviews of consumers to find out about their habits of fish consumption, about their preferences for certain fish, and about her opinions and ideas for improvement in order to bring her better quality fish products. If the housewife asks you in, start the interview.

Many of the housewives may not want to be interviewed. Here is a list of suggestions that will give you ideas for a sales talk. Your opening sales talk is most important, plan it well.

A. The interview will take 15 minutes or less.

B. Her household has been selected on a scientific basis, and therefore her participation is very important in getting a true cross section of the consumer market.

C. If she tells you that her family does not use fish, you can say something like this, "That's fine; it is more important that I talk to you than some family that uses fish all the time." "The interview will take just a few minutes in your case."

D. We are not trying to sell her any fish products.

E. You may have to make up a story of your own. The important thing is to get that particular interview. It may be necessary to stand on the porch and interview some housewives if they do not let you into their home.

Clean, moderately dressed, friendly interviewers always have the most success.

Early morning and meal times are busy hours for housewives. Try to make your calls when she is free. It may prove helpful to make appointments for later calls. This should be done only as a last resort as it is expensive to make call backs. Also, the respondent may not keep the appointment. Some evening calls may be necessary. This is the only time that working people can be contacted.

VI. Instructions for Completing the Questionnaires

A. Review questionnaire several times in order to become completely familiar with it. If you have any questions, contact your supervisor.

B. Interview the person in each household responsible for buying or preparing and serving the food. Ask about this when you start the questionnaire. If the housewife is not at home, it will be necessary to make call backs. Working housewives will usually have to be contacted in the evening.

C. Be sure the housewife understands that the survey does not include canned fish.

D. Read all questions exactly as they are worded. Do not omit any words or rephrase the questions in your own words. This is important to insure that each question will be asked the same way by all interviewers.

E. In all cases the word frozen refers to packaged frozen fish or shellfish.

F. In several of the questions you will notice that there is a list of alternatives for the housewife to choose from. Unless specifically directed to do so on the questionnaire, do not read this aloud. In most cases you will read the question and let the housewife give her answer. Then you will check the appropriate blank. If her answer is not listed, write it in on the questionnaire.

G. All material in parenthesis is for your instruction. Do not read this aloud when conducting an interview but read it to yourself and follow instructions.

H. You should stress the underlined words in each question.

I. The questionnaire is organized into four parts. Part I consists of questions about fresh fish and shellfish. Part II consists of questions about frozen packaged fish and shellfish. Part III contains questions about smoked fish and Part IV is a group of general questions. If the household does not use fresh fish, Part I will be skipped. If she does not use frozen packaged fish, Part II will be skipped, etc. Instructions for carrying out the procedure are indicated on the questionnaire. Follow them carefully and ask your supervisor any questions that you may have.

J. The classification information asked for in question 39 is rather personal, but is necessary for analyzing the data. Explain to the housewife that the information is desired because we think it may explain some of the important differences in fish consumption. Annual income will be the most difficult to obtain. If the housewife doesn't know or refuses to answer, indicate in the margin whether the family would fall in a low, medium, or high income group.

K. If the respondent mentions something that seems important but not covered by the questions, it should be recorded under "Remarks" at the end of the questionnaire.

L. After completing the interview, thank the person interviewed for their time and cooperation before leaving the house.

RETAIL SURVEY
Instructions for Interviewers

1. Approximately 250 retailers will be interviewed personally in Washington, Oregon, and California. The survey is concerned with fresh, frozen packaged, and smoked fish. It does not include canned fish.

2. Each interviewer will receive the addresses of the stores he is to interview. Only the specified stores will be contacted. If fresh, frozen packaged, or smoked fish are not handled then discontinue the interview.

3. Interviewers should talk to the manager or the store owner. It may be necessary to make appointments for call backs. There will be cases where different people will be in charge of the frozen packaged fish and the fresh fish departments. When this situation arises, both men should be interviewed about their respective responsibilities. The manager of the store should be asked the general questions (39-47). The name of each person interviewed should be recorded on the lines provided at the beginning of the questionnaire.

4. The cooperation from retailers on the pretest was excellent and there should be few refusals. In case you have one, fill in the name of the store, mark your questionnaire accordingly and turn it in to your supervisor. Interviewers are not to substitute another firm in the place of a refusal.

   All questionnaires must be turned in to your supervisor regardless of the amount of information contained in them.

5. Comments made by the respondents during the interview that are not covered in the questionnaire should be recorded in the margins or at the end.

6. In several of the questions you will notice that there is a list of alternatives for the respondent to choose from. Unless specifically directed to do so on the questionnaire, DO NOT READ THIS LIST ALOUD. In most cases you will read the question and let the respondent give his answer. Then you will check the appropriate blank. If his answer is not listed, write it in.

7. All the material in parenthesis is for your instruction. Read it to yourself.

Study these instructions and the questionnaire carefully. The questionnaire is self explanatory except for those instructions given above.

Confidential
Final Questionnaire
March 5, 1956

Record No._____

Results of calls at household

| | 1st Call | 2nd Call | 3rd Call |
|---|---|---|---|
| Housewife home | | | |
| Not home | | | |

Consumer Questionnaire
Pacific Coast Fish Marketing Study
Department of Agricultural Economics
Oregon State College
Corvallis, Oregon

Interviewer_____ Date _____

Name of person interviewed_____

Address_____Phone_____
street number city state

1. During the past year did you or any member of your family purchase any fish or shellfish other than canned, for home consumption? This would include fresh, frozen packaged, and smoked fish and shellfish.
_____yes (If yes, continue interview at 3 below.)
_____no (If no, ask question 2, and then skip to 39 and complete the questionnaire from there.)

2. Are there any special reasons why your family did not purchase any fresh, frozen packaged or smoked fish or shellfish? _____no _____yes

(If yes) What are your reasons for not purchasing any?
_____don't like
_____prefer canned fish
_____catch our own or receive from other people
_____not accustomed to eating fish
_____other (specify)_____

(Skip to question 39)

PART I Start here - I would first like to ask you some questions about fresh fish and shellfish.

3. Did you or any members of your family purchase any fresh fish or shellfish for home consumption during the past year?
_____yes (If yes, skip to question 5)
_____no (If no, ask question 4, then skip to Part II, question 14)

Record No._____

4. Are there any special reasons why you did not purchase any fresh fish?
_____no _____yes

(If yes) What are your reasons for not purchasing any?
_____don't like
_____prefer frozen packaged
_____catch our own or receive from other people
_____not available
_____can't keep fresh fish long enough at home
_____not accustomed to using fresh fish
_____price too high
_____other (specify)_____

_____

(Skip to Part II, question 14)

5. Which of the following kinds of fresh fish and shellfish did your family purchase last year? (Read list and check proper blanks)

| | |
|---|---|
| _____salmon | _____ |
| _____halibut | _____ |
| _____sole | _____ |
| _____rockfishes | _____ |
| _____crab | _____ |
| _____other (specify) | |

6. At what type of store did you last purchase these fresh fish and shellfish? That is, did you purchase them at: (Read list)
_____fish market
_____meat market
_____supermarket
_____grocery store
_____neighborhood grocery
_____fish peddler
_____other (specify)_____

7. Can you generally get the following kinds of fresh fish and shellfish at the place where you do most of your food shopping? (Read list)

| | Yes | No | Don't know |
|---|---|---|---|
| Salmon | ___ | ___ | ___ |
| Halibut | ___ | ___ | ___ |
| Sole | ___ | ___ | ___ |
| Rockfishes | ___ | ___ | ___ |
| Crab | ___ | ___ | ___ |

8. Do you have any complaints about the way fresh fish and shellfish are handled in the stores where you buy fish? _____no _____yes

(If yes) What are your complaints?
_____not iced
_____fish not fresh
_____fish off-color
_____not attractively displayed
_____other (specify)_____

Record No._____

9. Do you prefer to buy your fresh fish and shellfish pre-packaged?
_____yes - ask question 10 _____no - ask 11 _____don't know - ask 11

10. (If yes) In which of the following kinds of packages do you prefer to buy fresh fish and shellfish? (Read list)
_____in a cardboard tray with a transparent cover
_____in a transparent wrapper
_____no preference
_____other (write in) _____

11. Which do you prefer, salmon steaks or salmon fillets?
_____steaks
_____fillets
_____no preference

12. Which do you prefer, halibut steaks or halibut fillets?
_____steaks
_____fillets
_____no preference

13. Why is it that you do not purchase more fresh fish and shellfish?
_____no special reason
_____price too high
_____catch ample supply
_____fish not fresh
_____eating enough now
_____other (specify) _____

---

PART II Start here - Now I would like to ask you some questions about <u>frozen packaged fish and shellfish</u>.

14. Did you or any members of your family purchase any frozen packaged fish or shellfish for home consumption during the past year?
_____yes (If yes, skip to question 16)
_____no (If no, ask question 15, then skip to Part III, question 26)

15. Are there any special reasons why you did not purchase any frozen packaged fish or shellfish? _____no _____yes

(If yes) What are the reasons you did not purchase any?
_____prefer fresh fish
_____catch own fresh fish
_____price too high
_____quality not uniformly good
_____not accustomed to eating frozen foods
_____other (specify) _____

(Skip to Part III, question 26)

Record No._____

16. Which of the following kinds of frozen packaged fish and shellfish did your family purchase during the past year? (Read list)

| | |
|---|---|
| _____salmon | _____ |
| _____halibut | _____ |
| _____sole | _____ |
| _____rockfishes | _____ |
| _____crab | |
| _____other (specify) | |

17. At what type of store did you last purchase these frozen packaged fish and shellfish? That is, did you purchase them at: (Read list)

_____fish market
_____meat market
_____supermarket
_____grocery store
_____neighborhood grocery
_____other (specify)_____

18. Can you generally get the following kinds of frozen packaged fish and shellfish at the place where you do most of your shopping? (Read list)

| | Yes | No | Don't know |
|---|---|---|---|
| Salmon | ___ | ___ | ___ |
| Halibut | ___ | ___ | ___ |
| Sole | ___ | ___ | ___ |
| Rockfishes | ___ | ___ | ___ |
| Crab | ___ | ___ | ___ |

19. Do you have any special complaints about the way frozen packaged fish and shellfish are handled in the stores where you buy your fish?

_____no _____yes

(If yes) What are your complaints?
_____not attractively displayed
_____old merchandise left in cabinet
_____other (specify) _____

20. In which of the following kinds of packages do you prefer to buy frozen packaged fish and shellfish? (Read list)

_____in a cardboard box with a transparent cover
_____in a covered box with a picture showing what the product looks like when ready to eat
_____in a transparent wrapper
_____no preference
_____other (write in)_____

21. How many servings would you like to be able to get from each package of frozen fish or shellfish? _____number of servings

22. Would you prefer that frozen packaged fish be divided into individual servings?

_____yes - ask 23 _____no - skip to 24 _____no preference - skip to 24

23. How large would you prefer each serving to be in ounces? _____oz.

_____don't know

24. In buying frozen packaged steaks and fillets, do you think the steaks and fillets should be separated by a piece of waxed paper?

_____yes _____no _____no preference

Record No._____

25. Why is it that you do not purchase more frozen packaged fish and shellfish?
_____no special reason
_____don't like
_____prefer fresh fish
_____not accustomed to eating frozen foods
_____eat enough at present
_____other (specify)_____

---

PART III Start here - Now I have a few questions about smoked or kippered fish.

26. Did you or any members of your family purchase any smoked or kippered fish for home consumption during the past year?
_____yes (If yes, skip to question 28)
_____no (If no, ask question 27, then skip to Part IV, question 32)

27. Are there any special reasons why you did not purchase any smoked or kippered fish? _____no _____yes

(If yes) What are your reasons for not purchasing any?
_____price too high
_____don't like
_____not accustomed to using
_____salt not permitted in diet
_____not available
_____quality (specify) _____
_____other (specify)_____

(Skip to Part IV, question 32)

28. Which of the following kinds of smoked or kippered fish did your family purchase during the past year? (Read list)
_____salmon
_____cod (sablefish or black cod)
_____others (write in) _____

29. At what type of store did you last purchase smoked or kippered fish? That is, did you purchase them at: (Read list)
_____fish market
_____meat market
_____supermarket
_____grocery store
_____neighborhood grocery
_____other (specify) _____

30. Can you generally get the kinds of smoked or kippered fish that you want at the place where you do most of your food shopping?
_____yes _____no _____don't know

Record No._____

1. Do you have any complaints about smoked or kippered fish products?
_____no _____yes

(If yes) What are your complaints?
_____too soft and moist
_____too dry
_____price too high
_____other (specify)_____

---

ART IV Start here - Now there are a few general questions that I would like to ask you.

2. If you could buy fresh fish and frozen packaged fish at the same price, in which form would you prefer each of the following kinds of fish and shellfish? (Read list)

| | Fresh | Frozen | No Preference |
|---|---|---|---|
| Salmon | — | — | — |
| Halibut | — | — | — |
| Sole | — | — | — |
| Rockfishes | — | — | — |
| Crab | — | — | — |

3. How do you most frequently prepare the following kinds of fresh and frozen packaged fish and shellfish? That is, do you fry, bake, broil, barbecue, boil, poach, make salads or appetizers? (Read list and ask only about fish used by this family.) (Check proper blanks.)

| | Fry | Bake | Broil | Barbecue | Boil | Poach | Salads | Appetizers |
|---|---|---|---|---|---|---|---|---|
| Salmon | | | | | | | | |
| Halibut | | | | | | | | |
| Sole | | | | | | | | |
| Rockfishes | | | | | | | | |
| Crab | | | | | | | | |

4. Have you purchased any pre-cooked steaks or fillets?
_____yes - ask 35 _____no - skip to 36 _____don't know - skip to 36

5. Would you prefer to buy pre-cooked steaks and fillets breaded or unbreaded?
_____breaded _____unbreaded _____no preference

6. Have you tried "prepared" frozen fish dinners?
_____yes _____no _____don't know

(If yes) What suggestions do you have for their improvement?_____

_____

Record No._____

37. For meals eaten at home, about how many times a month do you serve fresh or frozen packaged fish for lunch or dinner during Lent and during the rest of the year? _____times a month during Lent _____times a month during the rest of the year

38. Does your family as a group prefer to eat its fish meals at home or in a restaurant? _____at home _____in a restaurant

If in a restaurant, why?
_____all members of the family don't like fish
_____don't like to fix fish
_____don't know how to prepare fish
_____don't like smell
_____like to try unusual fish dishes
_____other (specify) _____

---

39. CLASSIFICATION DATA

A. How many people are there living in your household, counting children and babies and any relatives or other adults? _____number

B. How many people in your household are in each of the following age groups? (Read list)
Number
_____under 16 years
_____16 to 24 years
_____25 to 45 years
_____45 and over

C. What kind of work does the head of the household do? (Get kind of work, not profession)
_____

D. In which of the following groups does the approximate yearly income of your family fall before income taxes are deducted?
_____under 2,000 dollars
_____2,000 to 4,000 "
_____4,000 to 6,000 "
_____6,000 to 8,000 "
_____3,000 to 10,000 "
_____more than 10,000"

E. For rural families only. Does your family raise most of the food you use, or do you buy most of it?
_____raise most _____buy most _____don't know

F. What was the last grade you completed in school or college?
_____last grade completed

G. How long have you lived in this state?
_____years

H. Where did you live prior to moving to this state?
_____county or state

Record No._____

I. What is your religious preference?
_____none
_____Catholic
_____Protestant
_____Jewish
_____other

Automatic Classification

J. Color
_____white
_____Negro
_____oriental
_____other

K. Farm, Non-Farm
_____farm
_____non-farm

REMARKS_____

_____

_____

_____

_____

Confidential
Final Questionnaire
March 10, 1956

Record No. _____

| | Result of Call 1st | 2nd | 3rd |
|---|---|---|---|
| Manager in | | | |
| Not in | | | |
| Refused | | | |

RETAIL QUESTIONNAIRE
PACIFIC COAST FISH MARKETING STUDY

Department of Agricultural Economics
Oregon State College
Corvallis, Oregon

Name of firm _____ Phone _____

Address _____
street city state

Ownership: _____chain _____independent

Name of person interviewed _____

Position _____

TYPE OF RETAILER

_____neighborhood grocery _____supermarket _____fish market

_____grocery store _____meat market _____other (specify)

---

Part I - Start here. First I want to ask you some questions about fresh fish and shellfish.

1. Did you handle any fresh fish or shellfish during 1955?

_____yes - ask question 4
_____no - ask question 2

2. Did you handle fresh meat during 1955?

_____yes - ask question 3, then skip to question 21, Part II
_____no - ask question 3, then skip to question 21, Part II

3. Are there any special reasons why you did not handle fresh fish and shellfish?

_____no
_____yes - if yes, what are your reasons for not handling fresh fish?

_____not enough demand
_____don't like fish smell in store
_____other (specify) _____

(Skip to question 21, Part II)

Record No._____

4. In 1955 approximately what percent of your total fresh fish dollar purchases were each of the following?

_____% salmon _____% sole _____crab
_____% halibut _____% rockfishes _____all other

5. In 1955 approximately what percent of your dollar purchases of fresh fish and shellfish did you purchase from each of the following sources? (read list)

_____% fisherman _____% local wholesaler _____% other West Coast wholesaler. Ask for location of wholesaler (city)_____

6. In 1955 approximately what percent of your fresh fish and shellfish were purchased through a broker? _____%

7. Are fresh fish and shellfish delivered to your store?

_____yes - How many times per week? _____number deliveries/week

_____no - How often do you pick up your fish from the wholesaler? _____number pickups/week

8. Do you have a self-service meat counter? _____yes _____no

9. Do you have self-service for packaged fresh fish? _____yes _____no

10. Do you do any processing or packaging of any fresh fish and shellfish?

_____yes - ask question 11 _____no - skip to question 12

11. Why do you package or process these fish products rather than buying them from a wholesaler?

_____

_____

_____

12. Do you have any complaints about the quality of fresh fish and shellfish products purchased by you?

_____no
_____yes - If any complaints, please explain:

_____

_____

Record No. _____

13. Do you have any problems in handling fresh fish products in your store?

_____no
_____yes - If yes, please explain the problems:_____

_____

_____

_____

14. Do you keep fresh fish iced while on display?

_____yes - If yes, skip to question 16. _____no - If no, ask question 15.

15. Why don't you ice your fish? (check answers mentioned)

_____isn't necessary in modern refrigeration case
_____ice not available
_____too expensive to buy ice
_____turnover is fast enough so that icing is not necessary
_____display case not adapted for icing fish
_____moisture damage to packages
_____other (specify) _____

_____

16. Which of the following methods do you currently use in determining your selling prices for fresh fish? (read list)

_____fixed percentage markup on all fish products
_____fixed percentage markup on individual fish products
_____price suggested by distributor
_____no set markup--follow competition
_____other

_____

17. What is your approximate current percent markup for each of the following kinds of fish and shellfish? (If percentage is not available, ask for cents per pounds markup and average purchase price for each specie - read list)

| | Percentage markup | Cents/pound markup | | Percentage markup | Cents/pound markup |
|---|---|---|---|---|---|
| halibut | _____ | _____ | rockfishes | _____ | _____ |
| salmon | _____ | _____ | crab | _____ | _____ |
| sole | _____ | _____ | | | |

18. Have your sales of fresh fish and shellfish increased, decreased or remained about the same during the past year?

_____increased - ask question 19
_____decreased - ask question 19
_____remained about the same - skip to question 20

Record No._____

19. What factors do you think were responsible for the changes in your fresh fish sales?

_____advertising
_____self service
_____better merchandising
_____over all store sales up
_____other (explain) _____

_____

20. Do you handle fresh fish as a profit item or as a service to your patrons?

_____profit item _____service to patrons _____both

---

PART II - Start here. I would now like to ask you some questions about frozen packaged fish.

21. Did you handle any frozen packaged fish and shellfish during 1955?

_____yes - ask question 22
_____no - If no, ask if there are any reasons why frozen packaged fish was not handled; then skip to 35 and continue.

_____not enough demand
_____handle only fresh fish
_____other (explain) _____

22. In 1955 approximately what percent of your total dollar purchases of frozen packaged fish and shellfish sales were each of the following?

_____% salmon _____% halibut _____% sole _____% rockfishes
_____% crab _____% all others

23. In 1955 approximately what percent of your total dollar purchases of frozen packaged fish and shellfish products did you purchase from each of the following sources? (read list)

_____% local fish wholesaler
_____% local frozen food wholesaler
_____% dairy products wholesaler
_____% other West Coast wholesaler
_____% other (specify) _____

24. In 1955 approximately what percentage of your frozen packaged fish and shellfish did you purchase through a broker? _____%

25. Do you have any complaints about West Coast frozen packaged fish and shellfish products?

_____yes _____no _____don't know

If yes, what are your complaints?_____

_____

Record No._____

26. What system do you have to prevent the accumulation of old stocks of frozen packaged fish and shellfish in your display cabinet?

_____rotate packages when cabinets are replenished
_____prevent overstocking to insure fast turnover
_____other (explain) _____

_____

27. Which of the following methods do you currently use in determining your selling prices for frozen packaged fish and shellfish products? (read list)

_____fixed percentage markup on all fish products
_____fixed percentage markup on individual fish products
_____price suggested by distributor
_____other

28. What is your approximate current percentage markup for frozen packaged fish and shellfish products? _____%

29. At what temperature do you keep your frozen food cabinet? _____°F.

30. Do you have frozen food storage space other than your display cabinets?

_____yes - If yes, at what temperature is it kept? _____°F

_____no

31. Have your sales of frozen packaged fish and shellfish products increased, decreased or remained about the same during the past year

_____increased - ask question 32
_____decreased - ask question 32
_____remained about the same - ask question 33

32. What factors do you think were responsible for the change in your frozen fish sales?

_____modernized display cabinets
_____improved methods of displaying and handling fish in the store
_____increase in all frozen food sales
_____greater variety of frozen fish available
_____promotion
_____other (explain)_____

_____

33. Do you handle frozen packaged fish and shellfish as profit items or as a service to your patrons?

_____profit item _____service item _____both

34. Do you think the consumer would prefer a standard size package or varying sized packages to meet the needs of different sized families?

_____standard size _____different size _____don't know

Record No._____

Part III - Start here. Now I would like to ask you some questions about smoked fish.

35. Did you handle any smoked salmon or sablefish in 1955? (Includes kippered)

Salmon _____yes _____no
Sablefish _____yes _____no

36. Do you have any complaints about smoked fish?

_____no
_____yes - If yes, what are these complaints?

_____need improved wrapper - explain _____

_____

_____reduce moisture content
_____greater uniformity of moisture content
_____greater uniformity of package size
_____other (explain) _____

_____

Part IV - Start here. Now I would like to ask you some general questions about fish.

37. Did you undertake any special promotion of fish and shellfish products in 1955?

_____yes - ask questions 38 and 39
_____no - skip to question 40

38. What products were involved?_____ _____

_____ _____

39. What methods were used to promote these products?

_____point of sale advertising
_____store demonstration
_____television
_____radio
_____newspaper
_____handbills
_____special price
_____other _____

40. What type of advertising do you think is most effective in increasing fish and shellfish sales?

_____store demonstration
_____television
_____radio
_____newspaper
_____handbills
_____other _____

Record No._____

41. In order of importance, what three factors do you think have the greatest influence on the volume of fish and shellfish sold by you?

_____quality
_____price of red meat in relation to the price of fish
_____price of poultry in relation to the price of fish
_____season
_____nationality
_____day of the week
_____knowledge of preparation
_____display
_____promotion
_____attractiveness of packages
_____other _____

42. Are there any changes needed in marketing practices, delivery services, quality, varieties of fish, packaging, etc. which would result in your handling more fish?

_____no
_____yes - If yes, please explain:_____

_____

_____

43. Approximately what was the total value of your sales of fresh, frozen packaged, and smoked fish and shellfish products in 1955? (Includes all fresh and frozen packaged fish) _____

44. Approximately what percent of your total dollar sales of fish and shellfish were sold as fresh, frozen packaged, or smoked?
_____% fresh
_____% frozen packaged
_____% smoked

45. Approximately how much were your total dollar store sales in 1955?
$_____

Confidential

Record No. _____

Final Questionnaire
January 10, 1956

| | Record of Calls | | |
|---|---|---|---|
| | 1st Call | 2nd Call | 3rd Call |
| Official in | | | |
| Not in | | | |
| Refusal | | | |

Wholesale Questionnaire
Pacific Coast Fish Marketing Study
Department of Agricultural Economics
Oregon State College
Corvallis, Oregon

Interviewer _____ Date _____

Name of firm _____

Address _____
Street City State

Phone _____ Ownership: Individual Partnership Corp. Coop (Circle one)

Name of Person Interviewed _____

Position _____

Type of wholesaler:

____ Fish and Shellfish
____ Primary
____ Secondary
____ Frozen food
____ Dairy Products
____ Other (write in)
_____

1. What was the total pounds and total sales value of fish and shellfish products sold by your firm in 1955?

_____ Pounds $ _____

2. Approximately how many pounds and what was the sales value of each of the following species of fish and shellfish handled by you in 1955? (If pounds and dollars figures are not available, ask what percent of your total dollar sales were accounted for by each of the following fish and shellfish?)

| | Fresh | | Frozen Whole | | Frozen Packaged | |
|---|---|---|---|---|---|---|
| | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars |
| Salmon | _____ | _____ | _____ | _____ | _____ | _____ |
| Halibut | _____ | _____ | _____ | _____ | _____ | _____ |
| Sole | _____ | _____ | _____ | _____ | _____ | _____ |
| Rockfishes | _____ | _____ | _____ | _____ | _____ | _____ |
| Crabs | _____ | _____ | _____ | _____ | _____ | _____ |
| All Other | _____ | _____ | _____ | _____ | _____ | _____ |

| | Smoked | |
|---|---|---|
| | Pounds | Dollars |
| Salmon | _____ | _____ |

3. Approximately what percentage of your total 1955 sales of fish and shellfish were

____Fresh fish ____Frozen packaged ____Smoked
____Frozen whole ____Canned, reduced, etc.

4. Approximately what percent of the frozen fish and shellfish handled by you in 1955 was produced in areas other than the West Coast?
_____%

(If wholesaler purchased fish produced in areas other than the West Coast, ask questions 5,6,7, and 8; if he did not, skip to 9.)

5. What products did you purchase from areas other than the Pacific Coast in 1955?

| Product | Areas from which purchased |
|---|---|
| _____ | _____ |
| _____ | _____ |

6. What were your reasons for purchasing fish and shellfish from areas other than the Pacific Coast in 1955?

| | |
|---|---|
| ___Cheaper | ___Consumer preference |
| ___Better quality | ___Inadequate local supply |
| ___Uniformity | ___Not available locally |
| _____ | ___Other (write in) |

7. Have your purchases of fish from areas other than the Pacific Coast in the past 2 years remained about the same, increased, or decreased?

___about the same - skip to 9 ___increased - ask 8
___decreased - ask 8

8. (If purchases increased or decreased). Do you expect the trend to continue? ___yes ___no ___don't know Why?_____

_____

_____

9. Do you think it would be a good idea to establish federal or state grades or standards for fresh fish on a voluntary basis? (Repeat question for frozen packaged fish.)

| Fresh (Check one) | Frozen Packages (Check one) |
|---|---|
| ___yes ___no ___don't know | ___yes ___no ___don't know |

10. On a quantity basis, approximately what percentage spoilage loss did you experience on each of the following kinds of fresh fish handled in 1955? (Interviewer read list and record percentages. Repeat the question for frozen packaged fish.)

| Fish | Percentage Loss on Fresh Fish | Percentage Loss on Frozen Packaged |
|---|---|---|
| Salmon | _____ | _____ |
| Halibut | _____ | _____ |
| Sole | _____ | _____ |
| Rockfishes | _____ | _____ |
| Crab | _____ | _____ |

11. (If wholesaler handles fresh fish)
What are your major causes of spoilage losses on fresh fish?

___ Improper icing before receiving
___ Improper icing after receiving
___ Improper handling before receiving
___ Loss due to overstocking
___ Improper handling during transportation
___ Other (specify)

12. (If wholesaler handles frozen packaged)
What are your major causes of spoilage losses on frozen packaged fish?

___ Improper packaging
___ Improper storage temperature before receiving
___ Improper holding temperature during transportation.
___ Product had been stored too long before receiving
___ Loss due to overstocking
___ Improper storage temperature after receiving
___ Other (specify)_____

13. At what temperatures (degrees Fahrenheit) are your storage rooms kept for fresh, frozen packaged, and smoked fish?

_____fresh _____frozen packaged _____smoked

14. How long can you hold the following kinds of frozen packaged fish and shellfish at merchantable qualities using your existing facilities? (Interviewer read list and record number of months.)

| Products | Frozen Packaged (months) |
|---|---|
| Salmon | _____ |
| Halibut | _____ |
| Sole | _____ |
| Rockfishes | _____ |
| Crabs | _____ |

15. Approximately what percentage of your dollar sales of fresh fish went to the following outlets? (Interviewer read outlets and record percentages. Repeat the question for frozen packaged fish. Institutions means restaurants, hotels, hospitals, etc.)

| | Sales Outlets | | | | |
|---|---|---|---|---|---|
| Products | Retail Stores | Institutions | Other fish wholesalers | Frozen food & Dairy Co. | Other (specify) |
| Fresh | _____ | _____ | _____ | _____ | _____ |
| Frozen packaged | _____ | _____ | _____ | _____ | _____ |

(If wholesaler handles frozen packaged fish, ask 16.)

16. In 1955, what percent of your dollar sales of frozen packaged fish was sold:

____Under your own label ____Under someone else's label ____Unlabeled

17. Do you offer delivery service on fish sold to other wholesalers?

____Yes ____No

18. Do you offer delivery service on fish sold to retailers?

____Yes ____No

19. If delivery service is offered, do you have regular routes?

____Yes ____No

20. If you have regular delivery routes, how often do you deliver?

____Daily ____Twice weekly ____Weekly ____Other_____

21. What general areas do your delivery trucks cover? (List cities)

22. What type of refrigeration is used during delivery of fresh fish to retail and intitutional trade?

____Insulated truck with ice
____Non-insulated truck with ice
____Other (explain) _____

23. What type of refrigeration is used in delivery of frozen packaged fish to retail and institutional trade?

____Mechanical refrigeration
____Dry ice - insulated truck
____Dry ice - non-insulated truck
____Other (explain) _____

24. Do you provide frozen fish display cabinets to retailers?

____Yes - If yes, ask 25
____No - If no, skip to 26

25. Are these cabinets leased to retailers or provided free of charge?

____Leased ____Provided free of charge

26. Do you arrange merchandise in frozen fish display cabinets?

____Yes ____No

27. Do you remove the stocks of frozen fish from the display cabinets after a given length of time?

____Yes - Ask 28 ____No - Skip to 29

28. How long do you permit frozen stocks to remain in the cabinet?

(Write in number of months) _____

29. Do you furnish ice without charge to fresh fish retailers?

____Yes ____No

30. Do you take back from retailers unsold fresh fish which has deteriorated in quality?

____Yes ____No

31. Did you do any organized educational work with retailers for the purpose of improving the quality of fish in 1955?

____Yes - Ask 32 ____No - Skip to 33

32. What type of educational work did you do?

_____

_____

_____

33. Approximately how much did you spend for advertising fish in 1955? $_____. What percent of this total was expended for the following kinds of advertising: (Interviewer read list)

____Firm advertising
____Brand advertising
____Local Association advertising
____National Association advertising (such as tuna, salmon, etc.)
____Industry-wide advertising (such as N.F.I.)
____Other _____

34. What media was used for brand and firm advertising in 1955?

____Radio
____TV
____Magazines
____Newspapers
____Billboards
____Car and Bus Cards
____Leaflets
____Store Demonstrations
____Special Sales Promotion
____
____
____

35. Do you expect to spend more, less, or about the same for advertising fish in 1956?

____More ____Less ____About the same

36. Which of the following kinds of advertising do you think is most effective; that which promotes: (Read list)

____Specific items on continuing basis
____Fish in season
____Items in temporary over-supply on a short-term basis
____Other (specify) _____

37. When providing extra services to your patrons, do you increase your prices or make a service charge?

____Increase prices
____Service charge
____Other (explain) _____

_____

38. What new fish products have you sold in the past three years?

____None
____Precooked fillets and steaks
____Frozen fish dinners
____Fish sticks
____Tuna pies
____Frozen fish soups
____Breaded scallops
____Other (specify)
____ _____
____ _____

(If some new products were introduced, ask 40.)

39. In your opinion, what is the best method for introducing new fish products to other wholesalers? (Repeat the question for retailers and consumers.)

| | Wholesalers | Retailers | Consumers |
|---|---|---|---|
| Advertising (radio, TV, newspaper) | _____ | _____ | _____ |
| Salesmen | _____ | _____ | _____ |
| Free samples | _____ | _____ | _____ |
| Store demonstrations | _____ | _____ | _____ |
| Leaflets | _____ | _____ | _____ |
| Recipe or cook books | _____ | _____ | _____ |
| Other | _____ | _____ | _____ |

Notes: _____

_____

40. Do you find retail stores generally receptive to new fish products?

____Yes - Skip to question 42 ____No - Ask 41 ____Don't know - Skip to 42

41. Why do you think stores are not receptive to new fish products?

____Cost of promotion ____Facilities not adequate
____Space not adequate ____Other _____

42. What is the capacity of the sharp-freezing facilities owned and rented by your firm?

lbs/day _____

43. Are your own and rented sharp-freezing facilities adequate to handle all your sharp-freezing requirements?

____Yes - Skip to 45 ____No - Ask 44

44. If no - Are enough public sharp-freezing facilities available for your use?

____Yes ____No

45. What is the capacity of the frozen product storage facilities operated by your firm?

_____lbs.

46. Are adequate public frozen product storage facilities available to your firm?

____Yes ____No

47. What is the capacity of your ice production unit? _____
What percent of capacity was used in peak period in 1955? _____
In low period in 1955? _____

48. How much ice did you purchase last year? _____tons
Price per ton? _____

49. Do you have any specific suggestions about how you could improve the quality of Pacific Coast fish and shellfish products?

_____

_____

50. Do you have any suggestions for improving the packaging of fish and fish products? (attractiveness, durability, size, shape, etc.)

_____

_____

51. Indicate in order of importance the three factors which you think have the greatest influence on the retail sales of fish. (Show card to wholesalers.)

| | |
|---|---|
| ____Quality | ____Weather |
| ____Price of red meats | ____Income |
| ____Price of poultry | ____Day of week |
| ____Price of fish | ____Knowledge of preparation |
| ____Season | ____Advertising |
| ____Nationality | ____Type of store displays |
| ____Religion | ____Other |

52. Do you think frozen packaged fish and shellfish should be divided into portions?

____Yes - Ask 53, 54, and 55 ____No - Ask 56 ____Don't know - Ask 56

53. How many portions should be in one package? _____

54. Approximately how large should the portions be in ounces? _____

55. Should the size of the portions be the same for family-size package and restaurant-size package? ____Yes ____No

56. How do you think the sale of smoked fish can be increased?

_____

_____



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